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An Installation that Lengthens the Span of Leisure



WITH the inauguration of railway service over the San Francisco-Oakland Bay Bridge, thousands of commuters will save about a half hour in travel time daily—15 minutes in each direction—approximately 180 hours annually—or 22½ working days.

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RAILWAY AGE

Economics and Politics of the Railroad Problem

The railroad problem is both an economic and a political one. No legislation or other action that is not economically sound will advance its solution. It is equally certain that no legislation will be passed that has not strong political backing. And how much political backing or opposition any proposed legislation will receive will depend upon how many and strong are the interests which are convinced that its passage will be to *their selfish advantage*. It is not difficult for any person who understands economic matters in general, and the railroad problem in particular, to tell what should be done about the railroad problem to promote the *public welfare*. It heretofore has been impossible, however, and will in future be, if not impossible, at least extremely difficult to get the selfish political support of enough interests to cause it to be solved to promote the public welfare.

There is an evident tendency in some quarters to give so much weight to what is *politically* necessary as to disregard what is *economically* necessary. But, while political support for sound measures is essential, it will do no good to get political support, however important, for measures that are not both sound and of great economic importance. When present wage scales were fixed in 1937 and maintained in 1938 the railroad problem passed into a new stage in which its solution requires measures much more drastic and comprehensive than might previously have sufficed. If effective political support cannot be secured for these more drastic and comprehensive measures, then no political support that is secured for any measures will contribute anything worth while to the solution of the economic problem presented.

The Question of Railway Subsidies

The ultimate and most important objective of new legislation should be prevention of government owner-

ship of railways, the adoption of which would be disastrous to the nation, both economically and politically. This can be accomplished only by largely increasing the railways' revenues, both gross and net. They are today virtually a bankrupt industry; and no industry could long continue, in their present financial condition, to function under private ownership.

Various means of improving their financial condition are advocated. One of these is government subsidies to offset the subsidies given their competitors. The *Railway Age* would benefit, at least temporarily, by government subsidization of the railways. But this paper believes that the American people already have suffered disaster, and are threatened with ruin, from policies economically unsound because adopted to help *special* interests at *public* expense. This paper believes every government expenditure or "investment" affecting competition, excepting with subsidized foreign enterprise, is economically unsound; and therefore it will refuse to advocate subsidies for the railways until it has been demonstrated that there is no other possible way of preserving private ownership. The "American system" will be saved, if it is saved, and prosperity for all restored, if it ever is restored, by those who fight consistently, courageously and effectively for policies in the long-range interest of the public regardless of their temporary or minor effects on special interests.

Not Merely Systems, But Policies, Must Be Changed

The only way that is economically sound, and therefore in the public interest, in which the financial condition of the railways can be improved is by increasing both the gross and the net earnings derived *from the traffic they handle*. Theoretically, there are various ways in which this could and should be done. As a practical matter some of the most important of these ways—such as advancing rates on certain traffic, and

reducing wages and other labor costs—are for the present taboo. But, largely because this is the case, it cannot be too strongly emphasized now that the needed increases in railway gross and net earnings will not be secured by changes of *system*, but only by changes of *policies*. There are numerous proposals for changes of *system*—for changing the bodies that regulate the railways; for changing provisions of law regarding consolidations, co-ordinations, and so on. The acid test applicable to every proposal is the question, "How, and how much, will its adoption increase railway gross earnings, while not correspondingly increasing expenses of operation and taxes—or how, and how much, will it reduce operating costs and taxes without reducing gross earnings?" The railroad problem is a problem of *money*—and all the changes of *system* that could possibly be proposed and adopted wouldn't provide the required money. It can be provided only by changes of *policy*, governmental and managerial. Revolutionize the present *system*—change regulating bodies completely, consolidate and co-ordinate railways to the limit—and unless present *policies* are radically changed government ownership won't be postponed a day. On the other hand, make needed changes in present *policies*, and the railways can thrive under the present system, bad as it is.

What, then, is wrong with present *policies*? The thing most wrong with present government policies is that they are still hindering, as they have for years, the full recovery of production and commerce, the source of all traffic for all carriers. The government policies that prevent the creation of a much larger total traffic for all carriers must be reversed before the railways can possibly get their full share—whatever it may be—of that much larger total traffic. The solution of the railroad problem depends largely upon solution of the broader problem of restoring prosperity.

Economics of the Problem

The solution of both that broader problem, and of the railroad problem itself, awaits the adoption of government policies that will be economically sound because *intelligently designed to increase the production, distribution and consumption of every kind of useful goods*. To this end it is essential that transportation as a whole shall be made as economical as is consistent with efficient service and the payment of reasonable wages. This requires that all needless duplication of facilities and service shall be avoided—or eliminated—and transportation confined to the most economical carriers, service considered. The most efficient and economical carriers for carrying any kind of traffic anywhere and for any distance are those which can capture that kind of traffic *in equal competition*. But there is not equal competition when some are regulated by government and not subsidized while others are subsidized by government and not regulated; and such unequal government policies must be abandoned in order to stop wastes in

transportation—wastes paid by the public that become huger and huger the longer such policies are continued and the more they are extended; and wastes that burden and restrict production and distribution of all kinds of useful goods.

Nobody, we believe, can find an economic fallacy in this reasoning; and it can be supplemented by abundant facts showing that huge wastes in transportation attributable to present government policies are actually occurring and increasing, greatly to the public detriment. The sound economic remedy is plain. (1) Equalize regulation. (2) Withdraw subsidies by requiring those commercially using public highways and waterways to pay enough for their use fully to reimburse the tax-paying public for the cost of their commercial use. That is strictly in accordance with the government policies advocated by business in general for other kinds of business. And furthermore, all the other kinds of legislation advocated to "help" the railways will be utterly inadequate unless accompanied by federal and state legislation to equalize regulation of transportation and withdraw subsidies from it.

What political support can be secured for such economically sound legislation?

Influence and Interest of Railway Labor

Its strongest political support should come from the railway labor unions. There is no doubt about their influence with Congress and the state legislatures. There can be no doubt, either, regarding interest of railway men, employed or unemployed. The reduction of railway earnings caused by the government-aided competition of other carriers has been almost as much responsible for the great decline of railway employment as has the depression. This competition, according to an estimate published in the *Railway Age* of January 7, page 3, cost the railways more than a billion dollars in freight earnings alone in 1937. In that year they paid out 45 per cent of their gross earnings in wages. At that ratio the freight earnings of which competition deprived them would have enabled them in 1937 to employ 253,000 more persons than they did employ at the average wage paid in that year.

Wages as well as employment are involved. In order to pay the higher wages of 1938 railway management had to reduce the number of employees to 192,000 less than in 1937 and to 43 per cent, or 727,000, less than in 1929. The railways cannot long be maintained in even safe, much less efficient, condition with such a small number of employees. We have not heard the last of the wage question unless measures are to be speedily adopted to make it practicable for the railways both to pay present wages and to increase employment. And only measures which will increase railway traffic while at least maintaining present freight rates will make it practicable to pay present wages to the needed largely increased number of employees. Therefore, all leaders and members of the railway labor unions, whether they

realize it or not, have the strongest selfish reasons possible for supporting federal and state legislation to make competition in transportation fair. If any of them talk of doing so to "help" the railways, this will be evidence that they are trying to get credit for doing what every intelligent person can see it is to their own self-interest to do.

When Messrs. Harrison, Robertson and Jewell joined with Messrs. Gray, Clement and Norris in adopting the program of the "Committee-of-Six," they acted for the benefit of railway men, employed and unemployed, more than for the benefit of the railway companies; and any railway union leader who does not energetically support that program will advertise that he would rather fatten his jealousy of Harrison, Robertson or Jewell, or his hatred of the railroads, than do what would obviously be in the interest of all railroad men, including the members of his own union.

Attitude and Interest of Business—Big and Little

How about the political influence of business? It will be divided. And strangely enough most of the business influence exerted against legislation that is imperatively needed to increase the earning, employing and buying power of the railroads, and to preserve them as an important part of the "American system of free private enterprise," will be exerted by Big Business interests that prate the most often and loudly in behalf of the "American system of free private enterprise."

It is a fact not heretofore emphasized often enough that most of the benefits of present government policies of subsidizing and inadequately regulating competitors of the railways go to certain parts of Big Business, while they are directly and indirectly paid for principally by little business, farmers and the white collar classes. The bulk of the subsidies to carriers on inland waterways goes to corporations that are big and rich enough to own the boats in which their freight is carried, and which, by the subsidies they receive, are given an advantage over their smaller competitors that cannot afford to own their own boats. Likewise, the bulk of the subsidies to highway transportation goes directly and indirectly to large corporations that make highway-building machinery and materials, gasoline, and trucks or that operate fleets of trucks in carrying their own freight. This is why the so-called National Highway Users' Conference is financed principally by highway-building, oil-producing and truck-manufacturing companies, and by large chain store companies whose ability to operate fleets of trucks largely at the expense of the taxpayers helps them to take business from competitors who, because smaller, are unable to own and operate their own fleets of trucks.

Every observing person knows that most of the business opposition to federal and state legislation to establish fairness in transportation competition comes from certain branches of Big Business. Can other Big Busi-

ness interests that are injured by present transportation competitive conditions be arrayed in favor of legislation to correct them? Can small business, especially, be brought into action for legislation to correct them? It should be possible if a real effort is made. In fact, it ought to be possible to make plain to every business interest that present government transportation policies are a menace to all business interests. They set a precedent for applying to all business policies violating the sound political and economic principle that government should not engage in competition with its own citizens or aid some of them in competition with others. They make the cost of transportation as a whole enormously excessive. And they push the railways toward government ownership, the adoption of which would damage the American political and economic system more than any other single event that could occur.

The Farmer and Subsidized Transportation

And how about the political influence of the farmer? Most of it may be used against needed legislation affecting competition in transportation unless the farmers are made better informed than they are now. The Big Business interests that oppose such legislation tell the farmer it would increase what he would have to pay for using his own truck on the highway—which is untrue. They tell him it would increase the cost of transportation paid by him as producer, or consumer, or both—which is untrue, because his total costs of transportation by inland waterway and highway, including the taxes he pays to help provide such transportation, are much higher than the railroad rates he must directly and indirectly pay for the same service. Like so many business men he is unaware of or disregards the fact that he is helping shoulder the government debt being incurred and helping pay the taxes being collected to build and maintain waterways and highways for the use of which no payment, or very inadequate payment, is made by their commercial users.

All the taxpayers bear the cost of developing and maintaining inland waterways. How many farmers, a vast majority of whom are located remote from any waterway, ever derived a nickel of benefit from them? A federal court recently made a formal finding that heavy duty trucks, by their use of highways in Illinois, cost the taxpayers of the state an average of \$1,350 a year per truck, while they pay for that use only \$350 a year. The farmers of Illinois are bearing in their taxes a large part of that difference of \$1,000 a year, as in every other state they are bearing a large part of the cost of having large trucks and buses use the highways.

President Roosevelt and Congress

And how about the political influence of President Roosevelt and the attitude of members of Congress?

The election last fall showed the President's influence has declined. But he still has enough to contribute greatly toward needed transportation legislation; and he virtually told the "Committee-of-six" he would support any legislative program upon which railway management and labor could agree.

As to Congress, there are many more Republicans and fewer Democrats in it than last session, and presumably more liberal-conservatives and fewer radicals. Not all the Republicans can be assumed to stand unequivocally for the American system of free private enterprise; but apparently most of the Republicans and many of the Democrats can be. But no man who is not a politician can get himself elected to Congress—or at least hope to get re-elected. Therefore, whether in principle conservatives, liberals or radicals, Republicans or Democrats, anti-New Dealers or New Dealers, the members of Congress will consider the probable political consequences to themselves of supporting or opposing any proposed transportation legislation.

Undoubtedly most of them would prefer to support legislation tending to establish equality of opportunity in transportation competition; but no effort should be spared by those outside Congress who seek such legislation to create and cause the manifestation of a public sentiment for it.

Those anxious to restore railway earning capacity, and thereby to preserve private ownership, should not be misled or have their efforts reduced by the improvement that has occurred since last summer in traffic and earnings. In spite of this improvement the railroad situation is still very bad and the railroad problem still extremely serious and difficult. It cannot be too often or strongly emphasized that to enable the railways to maintain present wages, avoid many more bankruptcies, contribute toward recovery and remain under private ownership there must be arrayed an overwhelming political influence in support of every kind of economically sound transportation legislation that has been or may be proposed.

Fixing Prices and Rates to End Unemployment—a Book Review

The consuming power of the public must increase as efficiency in production is increased, if jobs are going to be provided for the labor which is saved when the efficiency of production is improved.

Passing on to consumers the benefits of improved efficiency in production by means of lowered prices is the only effective means of increasing the consuming power of the public.

If efficiency is improved, but all its benefits are retained by the producers in higher wages and greater profits, then unemployment is bound to follow—and unemployment means fewer buyers of goods, and unproductive, and hence profitless, capital.

If every business in America were a "little business" (as the farmers are) with no ability to set prices for its products and make them "stick"—and if there were no labor unions to make wage rates "stick"—then we probably would not have unemployment and curtailed production during depressions.

Also, if all business were "little business," such as the farmers, the benefits of improved efficiency in production would be automatically passed on to the consumers in the form of lower prices—forced by competition.

On the other hand, we cannot have the benefits of mass production if all business is to be "little business." If we are going to have railroad service and steel and automobiles and radios at reasonable costs then we have got to accept "big business." Prices of the products of "big business" are not regulated automatically by the market, as is the price of wheat, for instance, but are the result of deliberate policies of management.

The Brookings Institution in a recent study* has examined the actual price policies of many businesses during the past 30 years or so. It finds that many industries have passed along the benefits of improved efficiency

to consumers in lower prices—and hence have increased employment and the productivity of capital. Others have not been so wise. And, in some measure at least, it is these unwise ones who are to blame for protracted periods of unemployment and depression.

The Brookings study does not indicate that the problem is one which is simple or easy of solution. Some prices might be lowered without causing consumption to increase proportionately. This would mean that the business which thus reduced its prices would simply be throwing away its profits without contributing any benefits to anybody commensurate with its sacrifice. (And this would seem to be the case with freight rates *unless the prices of the commodities are reduced at the same time that freight rates are reduced*—which was not the case, for example, when freight rates were forced down by the I. C. C. at the beginning of 1937.)

Also, the Brookings study suggests that an industry may dispose of a part of its product in a low-price market, but without reducing all of its prices to this low level. By thus segregating its markets, the consumers in the original market may benefit if some (though less than proportional) part of overhead is carried by the low-price market. (The railways have long been endeavoring to apply this sound principle in rate-making, but the I. C. C. and the law-makers have stood in the path of economic progress with the long-and-short-haul clause.)

The Brookings economists hold that, if the business man is to continue having freedom to make decisions, he must use that freedom aggressively in the public interest. That he is not doing so in all cases at the present time is the challenge of this book—a challenge which touches every person in America who has the power to set or to influence a price or a wage rate, or to hire or fire anybody, or to increase or decrease production.

* "Industrial Price Policies and Economic Progress" by E. G. Nourse and H. B. Drury, Published by the Brookings Institution, Washington, D. C., Price \$2.50.

Novel Girder Design Employed in Grade Separation Structure

Used in federal reconstruction project on D. L. & W., where reinforced concrete highway bridge, on sharp skew, replaced inadequate structure

By Meyer Hirschthal

Concrete Engineer, Delaware, Lackawanna & Western

AMONG the projects which have been included in the federal program of railway-highway grade crossing elimination in the various states, there have been a number of interesting reconstruction projects involving crossings that had been eliminated through grade separation earlier in the century to meet conditions then existing but, at points where the facilities provided had become inadequate to take care of the increase in vehicular traffic which has taken place during the last decade. One such project, which involved the rebuilding of a highway bridge, is the subject of this article and is given special consideration because of the interesting use which it makes of long-span, reinforced concrete girders, so designed as to utilize to the greatest extent possible the elements of the structure which it superseded.

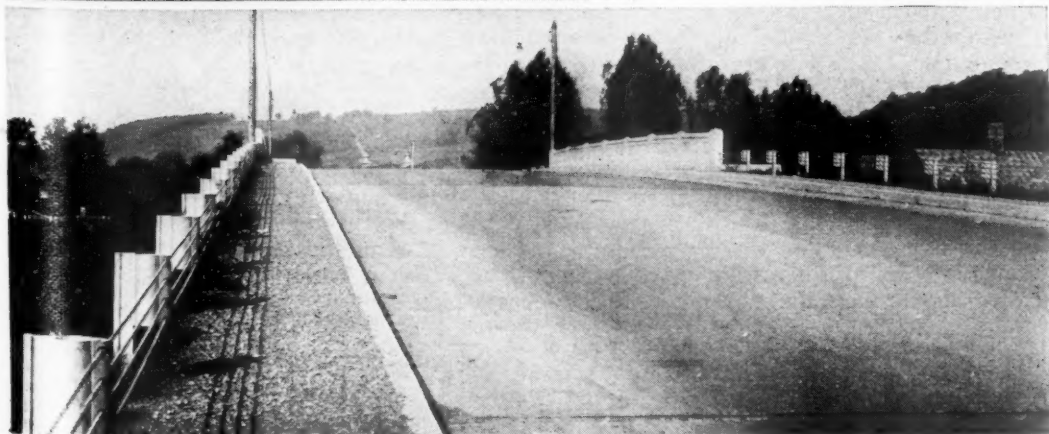
Old Structure Far from Adequate

The project in question is located on New York State Highway route 208, between Cortland and Homer, N. Y., and called for the replacing of a steel girder bridge over the two tracks of the Syracuse division of the Delaware,

Lackawanna & Western. The original structure was built in a grade separation project completed in 1921, and provided a 20-ft. width of paved vehicle roadway, with a separate span (trough) for a single-track high-speed trolley line of the Cortland County Traction Company. The superstructure was of the structural-steel, through-girder type, with steel floor beams and a solid concrete deck for the highway, and with conventional open-deck track construction over the trolley span. The substructure consisted of concrete abutments at right angles to the girders, with intermediate steel columns to reduce the girder span lengths, so located as to provide the required lateral clearance on each side of the double-track railroad, which passed beneath the bridge at an angle of 45 deg.

It was not many years after the elimination of the grade crossing at this point that changes in methods of transportation resulted in the substitution of buses for the trolley cars which had used this bridge, throwing the additional roadway traffic on to the highway span and making the track span valueless. At the same time, a marked increase in the number of private automobiles and trucks soon overtaxed the capacity of the highway span. In view of these factors, consideration was given to various methods of increasing the roadway capacity of the bridge, including the altering of the former track span to accommodate motor vehicles. The final result of attempts in this regard was a major change in the general alignment of the highway, including a change in the angle of crossing over the tracks to the sharper skew of 55 deg. 10 min. 17 sec., and requiring an entirely new superstructure with an increased width of roadway, and the elimination of the trolley span.

The new superstructure, which is of reinforced con-



From These Illustrations of the Old and New Highway Decks, There Is No Question as to What Interests Received the Entire Benefit From This Reconstruction Project

Right — The New Structure Utilized the Elements of the Former Structure as Far as Possible



Left — The Original Structure, Built in 1921, Became Entirely Inadequate From the Standpoint of Roadway Capacity

crete construction throughout, involving specially designed side girders supporting a roadway slab, provides a 40-ft. width of roadway and two sidewalks, the 5-ft. widths of which are reduced to a net clear width of 4 ft. 6 in. because of the necessity of providing a second step in the curb for reasons to be explained later. The overhead clearance is 22 ft. minimum from top of rail. The revised angle of skew resulted in the unusually long concrete girder spans, which are the most interesting feature of the structure.

The design of the new structure was based on revolving the elements around the point of intersection of the old center lines of the highway and the railroad tracks in order to permit utilization of as much of the existing substructure as possible for the new construction. To accomplish this, new piers were located through the center lines of the existing columns on each side of the tracks and were made continuous with the lines of the existing wing walls, portions of which, in turn, were built up to act as abutments to carry the new girders and deck slab. The existing abutments were utilized and extended and new wing walls were provided for retaining the altered highway approach fills.

It was evident at the outset that the limited depth of deck possible from the standpoint of clearance requirements, without altering the grade of either the highway or the railway tracks, which was undesirable, would necessitate that every possible advantage be taken to reduce the depth of the new girders. This was accomplished by reducing the dead load transferred by the slab; by designing the girders as continuous over the intermediate piers; and by the use of compressive reinforcement; but the conditions imposed still necessitated the use of a novel section of girder to meet the moment requirements.

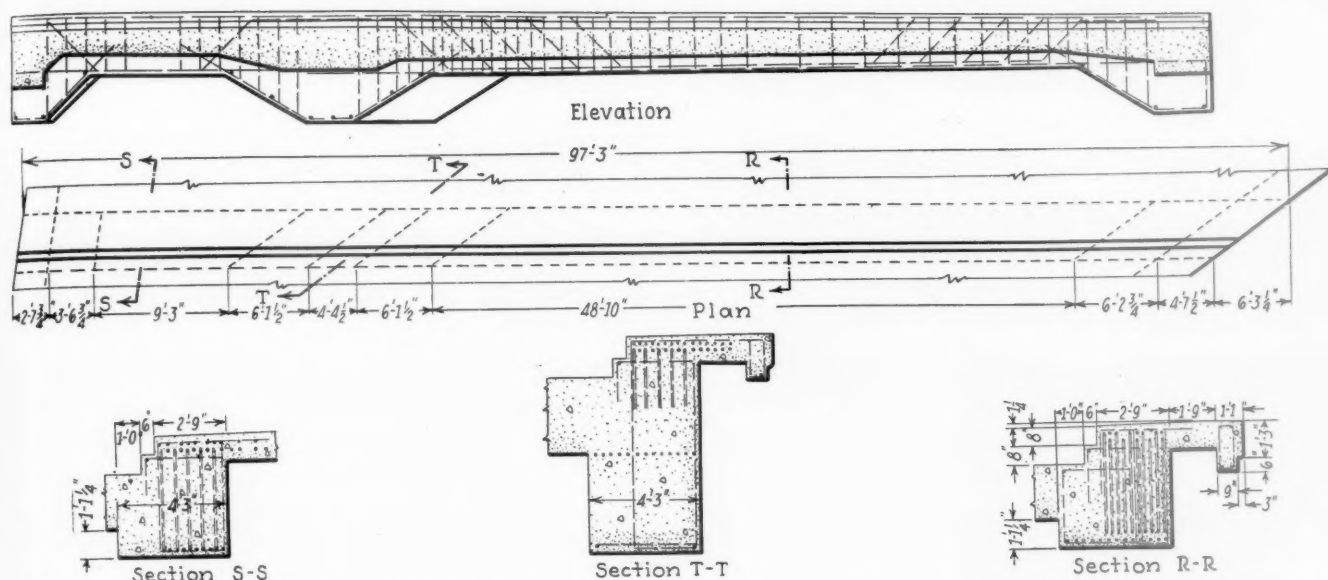
The reduction of the dead load of the roadway slab was effected by spanning at right angles to the center line of the railroad and by figuring both continuity and end restraint at all points where such advantages were

available, as well as by the use of compressive reinforcement, rather than by the use of lightweight aggregate. The maximum span of the slab is 34 ft., which occurs fortunately where the condition of continuity obtains, so that it was possible to hold the maximum slab thickness down to 28 in., which could be reduced in meeting the reduced requirements at the sections of the slab adjacent to the girders.

The maximum girder span occurs at the north side of the structure (because of slight track curvature) and amounts to 61 ft. 4 in. clear along the skew, or 65 ft. 10 in. center to center of bearings. To meet the moment requirements of the long girders, the plans for the roadway curb limited to 8 in. in height by the Department of Public Works of New York state, which was to be incorporated in the inside top face of the girders, had to be modified to permit the provision of another 8-in. step. In addition, it was necessary to incorporate a part of the sidewalk on each side of the structure with the girder on each side, and to provide an additional 2-ft. 10-in. width of sidewalk slab integral with the top of the girder to give it a one-sided "T"-shaped section, as will be noted in the accompanying plans. To obtain sufficient width of girder to accommodate the reinforcement in two layers only, as well as to provide sufficient area of section for compressive and shear resistance at the supports, the bottom width of the girder in each case was extended for a distance of 1 ft. beneath the roadway slab, making the total bottom width of each girder 4 ft. 3 in. The maximum moments and shears were determined by means of the theorem of three moments, considering as a short span the length directly over each pier support, which span was assumed unloaded and not subject to deflection.

System of Loading for Girders

The loading on each girder consists of the uniform dead load of the girder itself and the triangular dead



and live loads transmitted to it by the slab. The maximum positive moment near the center of the main span of each girder, with a maximum available girder depth of 57 in., required reinforcement consisting of thirteen $1\frac{1}{4}$ -in. square bars and ten 1-in. square bars placed in two layers near the bottom for tension, and three $1\frac{1}{4}$ -in. square bars placed in the top plane to take care of compression. All of the 1-in. square bars in both the long and short spans of each girder are bent up over the pier supports, providing a total of fifteen 1-in. square bars at this point, which, with fifteen $1\frac{1}{4}$ -in. straight square bars extending into both spans, meet the maximum negative moment requirements of the girders at the edge of corbels and over the support. Stirrups of $\frac{3}{4}$ -in. round bars are provided in addition to the bent bars for shear reinforcement. Cross-sections of the girder on the north side of the bridge at its intermediate pier support and at the centers of its long and short spans are shown in the accompanying illustrations.

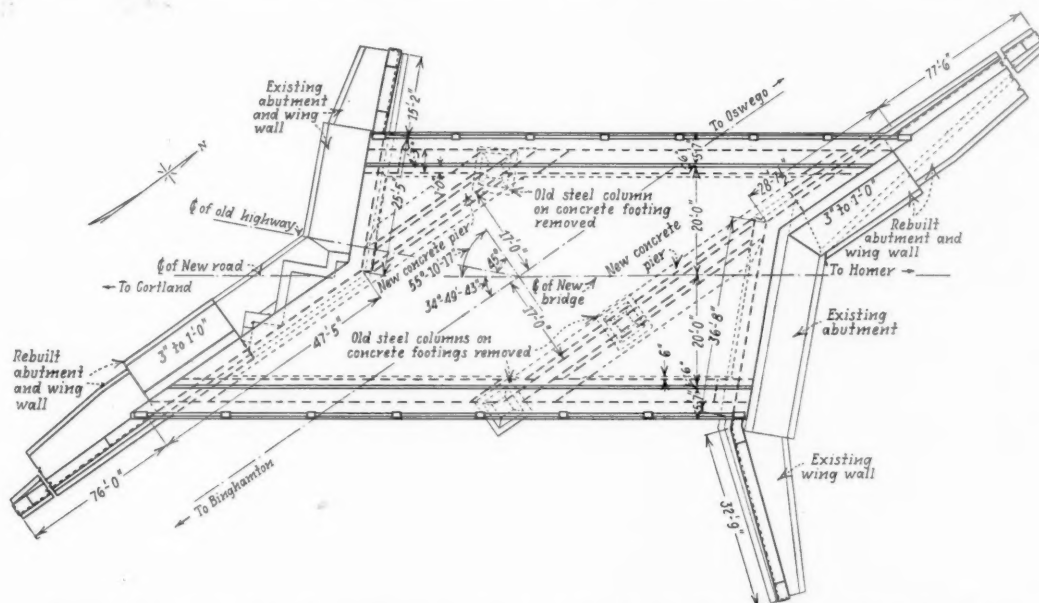
The piers on both sides of the tracks are designed with openings of 10-ft. span, with intermediate columns of 3 ft. 6 in. width, which resulted in a reduction of

load on the footings as well as economy of concrete. The design of the piers for the eccentric loadings transmitted to them required that their footings be located off center to obtain uniform distribution of soil pressure for the condition of maximum loading, and to yield lower unit pressures for lighter load conditions, under which a greater eccentricity of soil pressure resultant occurs.

Designed for H-20 Loading

The structure was designed for the standard H-20 loading called for in the specifications of the American Association of State Highway Officials, with the permissible reduction for four lanes loaded, but the allowable unit stresses were restricted to 16,000 lb. per sq. in. in the tensile steel and 650 lb. per sq. in. for extreme fibre in compression in the concrete. No attempt was made to give special architectural treatment to the structure; and the simplicity of the design avoided emphasizing the dissymmetry of the structure.

The concrete slab deck of the structure was completely waterproofed by a two-ply membrane of bitumen-satur-



ated cloth laid in bitumen, which is given protection by the 4-in. concrete roadway pavement applied over it. The waterproofing is carried down the rear of the back walls, past the construction joint in the case of new construction, and past all joints with the old masonry, to eliminate seepage through any of these joints. Drainage of the fill back of the abutments and wing walls is accomplished by means of broken stone, laid up both vertically and horizontally along the backs of the new sections of these walls.

The design and construction of the bridge were carried out under the general direction of G. A. Phillips, chief engineer of the Lackawanna, the design being under the direct supervision of J. L. Vogel, bridge engineer, and the writer. The C. D. Murray Company, Inc., Syracuse, N. Y., was the contractor who carried out the construction work, which was done under the supervision of the New York State Department of Public Works, of which E. W. Wendell is assistant chief engineer.

Wet-Bulb Air-Conditioning Control

THE Vitalized air-conditioning system of the B. F. Sturtevant Company, Hyde Park, Boston, Mass., consists essentially of a blower and spray-cooling unit, an ultraviolet-ray sterilizer, and a wet-bulb thermostat control.* The wet-bulb thermostat is designed to operate in conjunction with other control apparatus of any standard or special design for the control of temperature and humidity in passenger cars. Its function is to produce economy in ice consumption in cars equipped with ice-chilled-water air-conditioning systems and to reduce the maintenance of Freon or steam-jet-equipped cars by effecting more continuous operation.

The thermostat consists essentially of a small hard brass alloy reservoir to which a supply and return-water connection is made from the main spray-nozzle water-pumping system through a small copper tube. This tubing is installed as readily as electric wiring since it can be bent around corners and connected with standard flared fittings. Insulation against sweating is provided by standard commercial hollow sponge-rubber tubing and felt where necessary.

A few drops of water each minute (depending upon evaporation) find their way from the reservoir into a special leather sack or boot which becomes uniformly wetted over its entire outer surface. This water evaporating from the surface cools the interior of the boot to the wet-bulb temperature of the surrounding air. A mercury thermometer inserted into the sack, therefore, records this wet-bulb temperature.

At a predetermined point in the stem of the thermometer, corresponding to a given wet-bulb temperature, a wire is fused through the glass to contact the mercury when it rises to the proper wet-bulb temperature. Thus an electrical connection is established and the circuit completed through a relay whenever the mercury is at the desired wet-bulb temperature or higher. When the wet-bulb temperature is lower the electric circuit is opened and the relay de-energized. The entire device is placed in the outside air intake opening of the passenger car so that at all times, while the air-conditioning system is in operation, the wet-bulb thermostat is subjected to an ambient temperature corresponding to the outside air.

The relay is in turn connected electrically into the

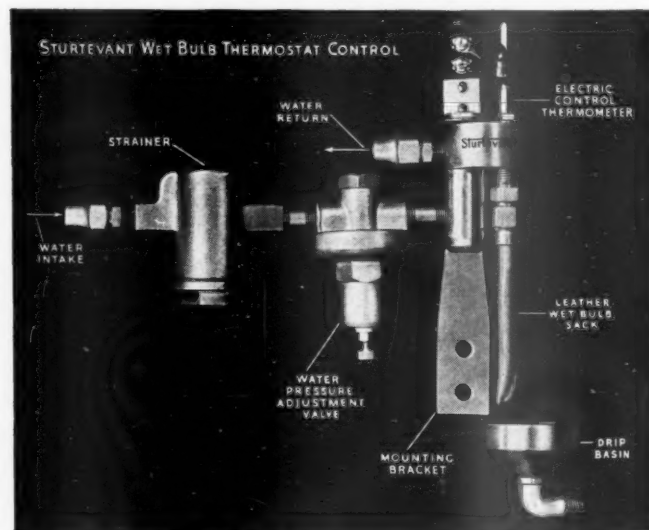
main air-conditioning control panel to operate a damper motor which will change an automatic damper setting from approximately 25 per cent outside air to about 100 per cent outside air and vice versa. At all outdoor wet-bulb temperatures below the pre-determined temperature the dampers will shift to admit 100 per cent outside air. Thus the car is furnished automatically with 100 per cent clean, fresh, washed and filtered outdoor air at all times when weather permits and at all other times with 25 per cent outdoor air and 75 per cent recirculated, but still washed and filtered air.

At no time is the mechanical refrigeration apparatus beneath the car overloaded. In fact, it is kept in more continuous operation by the control since the dampers reset automatically under wet-bulb temperature control to maintain a more nearly constant load upon the evaporator.

Cars equipped with ice-chilled-water systems will cool by evaporative cooling and consume no ice for refrigeration during the period when the dampers are set automatically to 100 per cent outdoor air.

An automatic water-regulating valve and a water strainer are furnished with each wet-bulb thermostat. These devices need only occasional attention. Experience has shown that when properly adjusted the valve will regulate the proper water flow for an entire summer without attention and the strainer need be cleaned no oftener than once or twice a season.

The wet-bulb thermostat may also be used for regulation of the ultraviolet sterilizer at all times when the outside air dampers are set to the 25 per cent position. This would include the heating season and periods when



The Wet-Bulb Thermostat Control Permits the Admission of One-Hundred Per Cent Outside Air in Mild Weather

mild weather conditions exist out of doors, such as in the spring and fall, and summer mountain weather at high altitudes. The relative humidity of the car may also be regulated uniformly without window condensation under such weather conditions. Water freezing temperatures cannot damage the control and, in most installations, the water will dry from the leather boot and drain from the reservoir when the main pump stops long before freezing weather exists. The control will also regulate the ice-water bypass valve in cars equipped with ice-chilled-water systems so that water will not pass through the ice bin during the evaporative cooling setting of the outside air dampers. This is essential for ice

* A description of the essential features of the equipment appeared in the November 27, 1937, issue of the *Railway Age*, page 762.

economy. On mechanically refrigerated cars the control can be made to shut down the compressor completely when evaporative cooling is possible.

The principle of the application of the wet-bulb thermostat to railway cars depends upon the fact that the quantity of heat in air at any given wet and dry-bulb temperature is determined by the wet-bulb temperature. In a conventional type of railway car full of passengers the usual maximum wet-bulb temperature of the air entering the evaporator coil (mixed outdoor and recirculated air) is in the neighborhood of 70 deg. F. The evaporator must cool this air to a wet-bulb temperature of approximately 55 deg. under maximum load conditions. The refrigeration tonnage-rate requirement is determined as a function of the difference between these two wet-bulb temperatures.

But there are many times when maximum conditions of outdoor temperature do not exist. If at such times a damper could be adjusted to admit outdoor air with no recirculated air and water sprays could be directed into intimate contact with the outdoor air to remove dust and secure the necessary benefit of evaporative cooling plus refrigeration, it would be possible to reduce odors and bacteria in the car by the very fact that the car would be ventilated by 100 per cent outdoor air, practically sterile and odor-free.

A 70-deg. F. wet-bulb temperature thermostat supplemented with water sprays and refrigeration will bring this about and make possible the introduction of 100 per cent outdoor air at all times when the outdoor wet-bulb temperature is low enough (70 deg. F. or less) not to overload the existing mechanical refrigeration apparatus.

Careful daytime studies of government weather bureau records indicate that trains running through territories in the vicinity of Philadelphia to St. Louis, to Dallas, Tex., or through regions north or west of this route can be operated with 100 per cent outdoor air under wet-bulb thermostat control slightly over 50 per cent of the time during a typical summer of June, July, August and September.

During the remainder of the time resort must be made to air conditioning with partially recirculated air. Under these circumstances the recirculated air and the outdoor air are then passed through the coils of the evaporator and washed with water sprays. The recirculated air is treated intensely with ultraviolet radiations to imitate the lethal action of sunlight upon bacteria and other micro-organisms. The ultraviolet sterilizer is said to produce a bacteriological result in a car equivalent to that which was obtained by the introduction of 100 per cent (approximately 2,000 cu. ft. per min.) outside air through the air-conditioning system into the car. The total power input to the sterilizer is about 12 amp. at 38 volts.

The ultraviolet sterilizer was first operated in railway service during the fall of 1937 after laboratory tests to establish the design had been completed. A careful check upon the apparatus in actual service at the end of the winter season disclosed remarkable agreement with laboratory tests and germicidal benefits from the lights as predicted. The regular sterilizer equipment produces no perceptible quantity of ozone, but when the presence of the small quantities of ozone found in mountain air are desired, special ultraviolet lights may be provided in combinations to meet any desired standards.

It can be shown that the application of vitalized air conditioning to railway cars will result in a saving of maintenance expense of existing mechanical equipment through less frequent starts and stops. The conventional



Standard Coach Control Panel, Including Wet-Bulb Thermostat Connections

air-conditioning system of today is designed for about six or seven tons per 24 hours' refrigerating capacity. Under such loads the compressor will operate almost continuously, but at other times the refrigeration load is reduced sufficiently to make it necessary for the controls to stop the compressor more or less frequently, depending upon the mildness of the day and the number of passengers in the car.

When the wet-bulb thermostat shifts the damper setting to 100 per cent outdoor air, the effect of recirculated air upon the operation of the system is, of course, removed. Under such circumstances a more continuous operation of the compressor equipment is made possible. Furthermore, the compressor equipment will shut down completely, allowing the water sprays to exert a cooling action by evaporative cooling under mild weather conditions and in favorable sections of the country.

Savings because of the absence of the need of removing evaporator coils and blowing them out with steam or chemicals to render them free of odor-producing collections of scum and algae growth are indicated. It is also expected that less frequent cleaning of the air ducts will be necessary.

"Transportation Act of 1939"

Lea introduces omnibus bill which is expected
to form basis for broad-gage legislation—

Hearings January 24

WASHINGTON, D. C.

REPRESENTATIVE Clarence F. Lea of California, chairman of the House of Representatives committee on interstate and foreign commerce, on January 13 introduced in the House his omnibus bill—a proposed "Transportation Act of 1939," which is designed "to improve the transportation situation of the country." While it is comprehensive in scope and detail, the bill (H. R. 2531) is generally regarded as a basis for discussion and hearings out of which will come some form of broad-gage transport legislation to be enacted at the present session of Congress.

Hearings before the House committee, originally scheduled for January 17, have been postponed until January 24. The first witness will be Interstate Commerce Commissioner Walter M. W. Splawn, the commission's 1938 chairman, and also chairman of President Roosevelt's first railroad committee—the so-called Splawn-Eastman-Mahaffie committee. President Roosevelt said at his January 17 press conference that he would probably send no special railroad message to Congress in view of the fact that there is nothing new to say about the transportation problem which has become pretty well understood. Meanwhile, he expected to confer again with Mr. Lea and Chairman Wheeler of the Senate committee on interstate commerce.

Many Matters Covered

The Lea bill covers some matters recommended by the President's more recent railroad committee-of-six, and others recommended by the Splawn-Eastman-Mahaffie committee. It sets forth a national transportation policy; provides for a reorganized Interstate Commerce Commission of 19 members functioning through three divisions; creates within the commission's staff the office of Transportation Administrator with "co-ordinator" duties similar to those proposed for the three-man transportation board recommended by the committee-of-six; brings certain water carriers under I. C. C. regulation; and gives the I. C. C. power over minimum rates of all types of interstate transportation, such power to prevail over that of any other federal agency.

The latter was characterized by Mr. Lea as "one of the most important features of the bill." He went on in this connection to express his belief that "we cannot have a necessary co-ordination of rates without a regulatory body of the federal government acting as a just umpire to protect legitimate rates and restrict destructive competition that is now an important phase of our transportation problems."

Also, the bill would provide for a special railroad reorganization court; repeal the consolidation plan to give the railroads more initiative in connection with mergers; liberalize Reconstruction Finance Corporation lending powers; and repeal land grant rates. There is no change in the rule of rate-making, nor provision for repeal of the long-and-short-haul clause, both of which were recommended by the committee-of-six. The bill does, however, propose to amend the fourth section so as to

provide that a regulated water carrier which cuts its rates to meet railroad competition shall not be permitted to increase such rates unless the commission finds that the proposed boost rests upon "changed conditions other than the elimination of railroad competition."

Designed to Preserve All Transport

It was on January 13 after a conference with the President that Mr. Lea made public a statement explaining the salient features of his bill. "This bill," that statement said in concluding, "is designed to preserve each type of transportation in giving the country the benefit of its economic advantages and to protect it in the performance of those functions. It is intended to prevent or minimize cut-throat competition and protect the public against the wastes and instabilities incident to such competition. It seeks to accomplish these purposes primarily by giving the one regulatory body control over minimum rates of the various types of transportation agencies. Economic rate conquests of the carriers are thus placed under one umpire to make for fair instead of destructive competition."

"It has a broad purpose of enabling the carriers of various types to operate on a self-supporting basis. It should encourage economies and greater efficiency through voluntary and profitable co-ordination and unification of operations and facilities. It will facilitate the reorganization of insolvent companies. It will permit loans by the R. F. C. where needed and where reasonable assurance of repayment can be given. It preserves the independence of the I. C. C. It allocates the work of the commission so as to enable the commissioners to devote more time to questions of general policy as well as a greater concentration upon the particular cases and problems coming before them. It contemplates a division of responsibilities that should result in thorough consideration and more expeditious action."

"The American people are paying over seven billion dollars a year for common carrier service. It would seem that under proper regulation these useful agencies, after throwing off the dead weight of unnecessary facilities and operations, should be able to operate at a reasonable profit to the advantage of themselves and the country. The transportation situation presents one of our economic problems of greatest magnitude. The situation is so bad that we cannot remedy it without positive and decisive action. Some existing practices must be disturbed. We are attempting to accomplish these beneficial results with a minimum of burden and interference with legitimate transportation activities."

Commenting January 17 on the outlook Speaker Bankhead of the House of Representatives said that the House leadership will not be disposed to rush action on transport legislation; he added that it would probably take the committee on interstate and foreign commerce from 60 to 90 days to complete hearings.

The bill's provisions are set up under five general titles as follows: Title I—Amendments to Interstate

Commerce Act; Title II—Transportation Administrator; Title III—Railroad Reorganizations; Title IV—Amendments to Reconstruction Finance Corporation Act; Title V—Payment by United States of Commercial Transportation Rates. The headnotes describe it as "A bill to redistribute the functions of the Interstate Commerce Commission with a view to more efficient exercise of rate making authority; to extend the jurisdiction of the commission in relation to the fixing of minimum rates, and rates for inland water transportation; to create a Railroad Reorganization Court; and for other purposes."

Declaration of Policy

The declaration of policy, which is included under Title II, sets forth that it is the policy of Congress "to strengthen the transportation system of the nation by eliminating sources of waste and weakness and by utilizing each type of transportation in the most effective economic way with a minimum of destructive competition, so that the carriers will better be able to meet present and prospective needs for growth and modernization and for the development of the best practicable service at the lowest reasonable cost."

The section providing for the enlargement and reorganization of the Interstate Commerce Commission stipulates that the former shall be accomplished by the appointment of eight additional members with two of the initial terms expiring on December 31, 1940; two on December 31, 1941, and one on each December 31 thereafter until December 31, 1945. Subsequent appointees would serve full seven-year terms. The salaries of commissioners are fixed at \$12,000 a year, and the I. C. C. secretary's salary at \$10,000; the proposed transportation administrator would receive \$7,500 a year. Although commissioner salaries are at present fixed by the Interstate Commerce Act at \$12,000, they were reduced to \$10,000 in the 1933 economy act, and have since remained at the lower figure. The present salary of the secretary is \$9,000 a year.

New I. C. C. Set-Up

The new 19-man commission would be divided into three divisions, to be designated respectively, the Appeal Division, the Rate Division and the Finance Division. The Rate Division would consist of nine members, and the other two of five members each, all to be assigned by the President who would also designate "annually" one of the members of the Appeal Division to be chairman of that division and also of the entire commission. Each of the other two divisions would select its own chairman.

The Rate Division would function as a rate section with its nine members assigned to sub-divisions of not less than three members each. Each of the latter would be open to receive a rate case involving any type of transportation over which the commission had jurisdiction. In addition to direct rate cases this Division will also deal with matters regarded as incidental to rate-making, such as divisions of rates, through routes and joint rates, service, accounts, records and reports and valuation. Generally speaking the jurisdiction of the commission not vested in the Rate Division would be vested in the five-man Finance Division. In other words, roughly speaking, regulatory functions would be assigned to the Rate Division and administrative functions to the Finance Division.

"The general plan of the reorganization," Mr. Lea's statement explained, "is to divide the burden of the work

of the commission according to the functions performed, with the purpose of permitting each commissioner to devote himself more exclusively to particular functions assigned him—the motive being to secure greater efficiency and promptness in handling commission cases and problems."

Appeals of Rate Cases

No appeal group within the commission is provided for appeals from orders made by the Finance Division. Orders made by the Rate Division would be subject to review by the Appeal Division, and review of a case would be secured by the summary procedure by which reviews are now had by all members of the commission. There would be no review of the sub-division decision by the whole membership of the Rate Division, as the application for review would be made directly to the Appeal Division and members of the Rate Division would not participate in the proceedings of the Appeal Division.

The Rate Division would make the record and issue its order and any review had would be by the Appeal Division based on the record of the Rate Division. The object of the Appeal Division is to rectify errors in rate decisions, and "particularly to maintain a consistent philosophy of transportation and co-ordination rates by the different types of competing transportation agencies."

The Transportation Administrator would function for the purpose of making studies of transportation problems, and of recommending legislation thereon to the Rate and Finance divisions; it would be his duty to furnish information required by either of such sections. Meanwhile, it would be the duty of railway carriers to take practical action to reduce operations and facilities consistent with adequate and efficient transportation, including the unification of properties, pooling traffic or earnings, pooling equipment under common ownership or control and the joint use of terminals, shops and other facilities. The administrator would encourage such efforts. Also, he would be authorized to request the commission to hold a hearing on his recommendations, after which the commission might make orders that it finds necessary in furtherance of the policies of Congress and in the public interest.

Study of Competitive Conditions

The administrator would also make an investigation of the competition between rail, motor and water carriers, to determine the relative economy and fitness of these three types of transportation and recommend what steps should be taken to limit the use of each type to the purposes for which it is best fitted, and to promote joint and cooperative use.

The commission would be given jurisdiction to regulate rates, fares, and charges of common carriers by water in interstate commerce upon the inland, canal, or coastwise waterways of the United States, but not carriers by water operating upon the high seas, or in inter-coastal commerce through the Panama Canal. This would include barge lines on the Mississippi and other rivers and on inland waters generally, but not steamship lines in coastwise commerce which use the high seas, which are under the jurisdiction of the Maritime Commission. In regulating rates of government-owned barge lines the commission would be required to follow an accounting system similar to that applied to privately owned carriers. It would also be given jurisdiction to prescribe, after investigation, the minimum rates that shall be charged by each transportation agency, railroads, motor trucks, motor bus, coastwise shipping, inland

water carriers, pipe lines, and air carriers. This power would be exercised only upon the commission's own initiative in the public interest when it has reason to believe that the rates of any transportation agency now subject to regulatory laws of the United States, are unreasonably low or destructive.

Railroad Reorganization

The bill proposes the establishment of a Railroad Reorganization Court of three members designated by the Chief Justice of the United States from existing circuit judges and District Judges. Changes in the membership would be made from time to time as the Chief Justice may determine. The court would sit at Washington but the power of the court or any of its judges and officials may be exercised any place in the United States. The court would have jurisdiction as district courts of the United States under and with respect to Section 77 of the Bankruptcy Act and in respect to equity receiverships. Such court might impose upon an appropriate district court such duties in connection with actual operations of properties in receivership, trusteeship, or reorganization as the Reorganization Court might consider necessary and proper. Appeals could be taken directly to the Supreme Court.

Consolidations

With respect to consolidations, the bill proposes the amendment of the merger provisions of the Interstate Commerce Act, eliminating the present provision requiring the commission to adopt a plan for the consolidation of railroad properties into a limited number of systems. The carriers would be authorized to propose consolidations, mergers, purchases, leases, operating contracts or acquisition of control. If the commission found that the proposed control would promote the public interest it might authorize it "upon the terms and conditions and with the modifications" found to be just and reasonable. The commission would be directed to give due consideration to the promotion of the efficiency and economy of the carrier service and better and cheaper service to the public. Also, the commission would be authorized to approve pooling of traffic and earnings.

In order to co-ordinate transport rates the commission could, when deemed desirable in the public interest, in-

vestigate rates and charges by any common carrier engaged in interstate commerce by railroad, water, highway motor vehicle, pipe lines or air, when such rates or charges are subject to any regulatory laws of the United States, when the commission has reason to believe that such charges are unreasonably low. If found desirable in the public interest, the commission would be directed to prescribe the minimum rate or charge to be thereafter maintained. This power includes that of prescribing different minimum rates for different carriers. For the purpose of carrying out this rate co-ordination, the commission would be given jurisdiction, as noted above, over minimum rates of all types of interstate transportation of which the federal government has assumed jurisdiction. Intercoastal rates would be included within this power; and an order of the commission, fixing the minimum rate, would prevail over that of any other federal regulatory body, such as the Civil Aeronautics Authority and the Maritime Commission.

R. F. C. Loans

Where compliance with orders made by the commission require capital expenditures, the funds for which cannot otherwise be obtained, the Reconstruction Finance Corporation would be authorized, in its discretion, to make loans for those purposes and as approved by the commission. The R. F. C. might make loans for financing reorganizations, consolidation and maintenance, or construction or purchase of the obligations of railroads engaged in interstate commerce, or guarantee repayment of the principal or interest of such obligations when the R. F. C. found that such funds are not available on reasonable terms through private channels, and provided that in every such case the commission and the R. F. C. found that the earning power of such railroad, together with the security furnished, gives reasonable assurance of the repayment of such obligations and affords reasonable protection to the R. F. C., and that R. F. C. and the commission approve of such loans and purchases.

R. F. C. loans are also authorized upon reasonable security to encourage the employment of labor and to finance the acquisition of equipment as approved by the commission as desirable for the preservation and improvement of transportation facilities. The outstanding amount of such loans shall not exceed \$300,000,000 at any one time.

* * * *



Steel Box Car of 80,000 Lb. Capacity Built by Pullman-Standard Car Manufacturing Company for the Southern



George E. Scott

George E. Scott Dies

Was president of American Steel Foundries since March, 1929, and an outstanding business and civic leader

GEORGE EATON SCOTT, president since 1929 of the American Steel Foundries, Chicago, and an outstanding business executive, civic leader and sportsman, died suddenly on January 11, at Rochester, Minn. Mr. Scott had gone to a clinic at Rochester for a minor throat operation, and then planned to go to Florida later for a vacation. However, pleurisy developed while he was in the hospital, and, although he was progressing favorably, he suffered a heart attack from which he died.

Mr. Scott was born at St. Louis, Mo., on May 22, 1871, and began his business career with the Simmons Hardware Company, St. Louis, in 1887. In 1901, he was elected vice-president of the Simplex Railway Appliance Company, which was subsequently acquired by the American Steel Foundries, in 1905.

Mr. Scott was appointed vice-president of the latter company which position he held until 1929 when he was elected president.

Mr. Scott possessed a well-balanced personality, the chief characteristics of which were reflected in his respect for the rights and opinions of others, his thoroughness and foresight, and his ability to persuade. As a result of these traits he had been an important factor in the expansion and success of the American Steel Foundries since its inception in 1905. For 24 years he was in direct charge of sales, and during this period his company experienced rapid development. Even as president he retained his ability to analyze sales problems and was often referred to as one of the two best salesmen in the railroad supply field.

His success as a salesman and a business leader were due to no small degree to his thoroughness and foresight. As a result, he encouraged and sponsored research and always insisted that the company's products be constantly improved for the benefit of the user. To make this possible he created a laboratory where a trained staff under his direction studied all products of the company. Public recognition of an important contribution of the American Steel Foundries' research staff to generally improved steel making was given in 1933

when two of his research metallurgists were awarded the Robert W. Hunt prize by the American Institute of Mining and Metallurgical Engineers. The winning paper presented by these men was based on the results of experiments and observations extending over a period of four years in an effort to discover the steel making procedure necessary to produce sounder steel castings of superior physical qualities.

As a business leader, Mr. Scott took an active part in the work of various trade associations. Since 1932, he had served as chairman of the executive committee of the Railway Business Association, and was largely instrumental in expanding the activities of that organization. He was a member of the Chamber of Commerce of the United States and frequently was a delegate from Illinois. He was a director of the Chicago Daily News, the Harris Trust & Savings Bank, the Personal Loan & Savings Bank, the H. Channon Company and the Griffin Wheel Company.

He was a member of several clubs including the Chicago, Commercial and Union League of Chicago, the Old Elm of Highland Park, Ill., and the Boone and Crockett and the Recess of New York.

Mr. Scott made a national reputation as a civic-minded business leader through his activities in the American Red Cross, the Boys' Club of America, the Izaak Walton League, and other similar organizations. He was an enthusiastic sportsman and active supporter of wild life conservation, devoted to hunting and fishing, and a collector of antique porcelain and of antique silver.

During the World War he was drafted by Henry P. Davison to serve the American Red Cross as manager and a member of its war council, and was with that organization from May, 1917, until April, 1919. He has been a member of the central committee, its national governing body, since that time.

In 1931 he was one of five business leaders named to raise \$8,800,000 for the Illinois emergency relief fund, before state and federal money became available to relieve distress.



Locomotives Must Be Kept in Efficient Use for Proper Return on Investment

Efficient Use of Locomotives*

How the superintendent may get maximum value in the operation of motive power

IT is essential that locomotive assignments be kept to as few classes as possible. This applies equally to motive power assigned to yard and local freight train operations. Proper locomotive assignment is reflected immediately in flexible operation and low maintenance costs, because the amount of material and terminal handling are greatly reduced, producing direct labor economies.

After the economical assignment of locomotives has been definitely established, proper programming of light and heavy repair work so that they will not conflict is next in importance. Heavy repairs consist of class repairs and include renewal of fire boxes, heavy boiler work of all description, renewal of flues, and complete overhauling of the running gear, frames and tenders. There is generally a definite time in which such repairs are made either on a mileage basis, a periodical work basis or a time basis, which provides opportunity to establish a definite program so that the back-shop facilities will not be overtaxed and the locomotives delayed while waiting their turn. This work should be so programmed that the operating department will have sufficient power at all times to meet the requirements. Transportation peaks mean that during certain months practically the entire assignment of locomotives must be in service in order to move the business that is offered, while in other months of the year, the need for power is below normal. Shopping for heavy repairs must be scheduled in the light of these conditions. Light repairs or boilerwashes should also be covered by a definite schedule. The boilerwash schedule should be made in advance and circulated in both the transportation and the mechanical departments so that the locomotives can be at the boilerwash points on time.

Enginehouses boilerwashing different types of power, such as passenger, freight and yard, and the further subdivision of these classes of power, should have their work planned so that the power will not be overbalanced as to types at any time. If this is done properly suf-

ficient power will be available at all times and there should be no need for assigning an improper type or class of power to any work.

The question of boilerwashing locomotives on three tricks is one which must be determined by the operating requirements of the division. The general practice is to have a large boilerwash gang on the first trick where the men are best supervised and conditions are most favorable, and a finishing-up gang on the second trick. This arrangement produces practically as much work as a three-trick operation and at less cost. However, when there is a shortage of motive power, a three-trick boilerwash operation may be necessary, although not recommended. All phases of boilerwash work should progress evenly; otherwise much time will be lost, and in the case of a three-trick operation, there is a loss of manual efficiency.

Many Departments Interested

When consideration is given the utilization of motive power, it is essential that the maintenance of way department co-operate with the mechanical department as the type of equipment changes. Certain types of equipment must be assigned to certain trains, because the track, bridges and clearances are not so arranged as to provide operating flexibility for larger power. Where such restrictions exist, a program should be formulated to eliminate the restricting points; this should be done in such a manner that it will reflect a downward trend in the locomotive assignment as rapidly as possible. In many cases curvature restrictions, faulty roadbed, and restrictive bridges can be corrected at slight cost. Such consideration should not only be given to present facilities, but to new projects as well that operation will not be hampered by changes in the design of equipment in a few years.

The most important factor in conserving and utilizing power is for the transportation department activities to be so co-ordinated with those of the mechanical department in the operation of the locomotives that by the handling of crews, locomotives, and operating conditions a

* From a report presented at the convention of the American Association of Railroad Superintendents by a committee of which E. C. Gegenheimer, superintendent, Pennsylvania, Altoona, Pa., was chairman.

large amount of out-of-service time can be saved on locomotives which are not required for repair or other enginehouse handling. The crew assignment should be gone over carefully to make sure that the work is so arranged as to bring their calling and relieving times within the range of other crews working in the same vicinity; by so doing the locomotive can be continued in service without being returned to the enginehouse. The ideal situation is to have the crews work the locomotives on a 24-hr. basis, being relieved by a change-off locomotive in order to comply with the law and to receive necessary inspection and preparation. The starting and relieving points of crews should be at advantageous places, so that there will be little time lost in light engine movement from the place of work to the relieving point. Where it is not possible to operate crews around the clock, there are many cases where a 16-hr. tour can be worked out which will permit the locomotive to be in continuous service for that period, and which, at the same time, allows sufficient opportunity for repairs and preparation. There are many cases where locomotives are working at points removed from any logical point for changing crews, or from any terminal that dispatches locomotives, such as short branch lines where industrial work, mining operations or other dense switching is involved, requiring that either the crew or the locomotive return to the terminal, with considerable loss of locomotive time. In such cases, the crews should change at outlying points, even though there is a slight transportation cost for the men, so as to permit the shifting work to proceed, and save many hours that would otherwise be lost locomotive operation. From actual experience, it has been found possible in several instances to withdraw a locomotive from service by this means. As an example, on one large railroad crews are deadheaded by automobile to outlying points, saving motive power and overtime.

Scheduling Locomotives

In order that locomotives may be worked as many tricks as possible during a 24-hr. period, a program of locomotive trick operation can be worked out, and from the number of locomotives necessary to cover the crew assignments a schedule of relieving locomotives can be so set up that the active locomotive hours in yard service will be materially increased, and, at the same time, efficiency will be promoted in the actual work performed. To reduce the layover periods of yard and local freight locomotives they should be of the same classes and types, and should be pooled, so that after a locomotive has completed one tour of duty in yard or local freight it can be switched to the other service and utilized for a second shift.

Initial and final terminal delays consume much of the active time of a locomotive. Where this is not kept within bounds, the two delays, which occur on every trip, amount to almost as much as the actual time that the locomotive consumes in performing the work of handling the train. The time that is spent in the yard, or in getting in and out of the yard at the beginning and end of the trip, is active time that is absolutely lost to that unit.

The operation of single-track districts is such that longer periods are consumed by trains for the performance of their work and such districts require more study from supervisors in order that the dispatching of trains, and the work that is required of them can be so regulated that the locomotive may be returned to its terminal with the least possible delay.

Helper service requires a considerable amount of power which operates for only short distances. So far

as possible freight trains should be so scheduled that the helpers can make a maximum number of trips during their shift. By matching helper units with train units, the power can often make one or two more helping trips per day than would otherwise be secured.

Train loads should be so adjusted and regulated that double-heading will be the exception. Trains should be dispatched with tonnage or car limit equal to the capacity of the locomotive.

A through train, after leaving its initial terminal, should move to the next terminal without stopping, except for fuel, water or icing of cars. Setting off and picking up cars at intermediate points should be done by specifically assigned trains so that only a small percentage of the through trains will perform pick-up and drop service. This method of operation will produce lower train hour figures and reduce non-productive locomotive hours.

Through Runs

Locomotives should be assigned through one or more terminals without being detached from the train except for the purpose of setting off or picking up cars, thereby effecting a substantial saving in initial and final terminal delay and in enginehouse preparation and handling, which adds to the productive time of the unit and will save approximately six hours for any unit at the terminal. The proper location of fuel and water stations is most important for through engine runs, and the relocation or abandonment of certain fuel and water stations may follow. The saving in crew expenses and in the fewer locomotives required to produce the same amount of service will far exceed any money outlay required for the revision of fuel and water stations.

The greatest loss in the use of power is that caused by light engine mileage, brought about by the difference in the number of train units operated in each direction, and by the fact that the loaded and empty movements are generally in different directions. For transportation on railroads where the commodity handled is of such a nature that the dispatching of trains on schedule is not necessary, a program should be inaugurated whereby dispatchments from either end of the locomotive run will be approximately equal, and at such times as there will be an even flow of power moving in and out of each terminal. This will avoid bunching of power that results in peaks and valleys in the movement. Roads handling coal, iron ore and similar commodities are particularly adapted to such a set-up.

Improvements Result of Numerous Tests

Improvements and modifications of any operation must be the result of a logical sequence of events and must be properly predetermined. In practice, it has been found desirable to conduct numerous tests, such as of train loadings and their application to the various classes of power operated; speed tests to control the time that the power is spending on the road; fuel tests to determine to what extent locomotives can be operated without refueling; and tests to determine the distance which they can be run to the best advantage.

The maximum utilization of power enters into practically every phase of railroad operation. When boiled down to a specific answer it comprises a balanced operation in each department. Repairs must be well-balanced; crews must be assigned in an intelligent manner; and trains must be operated in an economical and balanced cycle.

(Continued on page 163)

What About the "Gypsy" Trucker?*

Incalculable harm done to railways and merchants
by "fly-by-night" operators

WHILE Congress has been directing its attention toward legislation designed to govern the rates and operations of common and contract truckers, it has left untouched transportation by the itinerant merchant-trucker, who is both a merchant and a carrier, has no fixed place of business and follows no fixed transportation route. He comes and goes as his opportunity for profit direct.

This business is comparatively new and has reached a tremendous volume in a short time. So great has been the diversion of business from established channels to the itinerant trucker that we are obliged to pause and ask ourselves if perhaps a new system of merchandising and distribution is being evolved, based upon highway transportation, which will entirely displace the old system, based on rail transportation. If such a change is under way and is based upon sound economic conditions, it should, of course, prevail. On the other hand, if such a change is upon us, is it due to a change in economic conditions, or is it due primarily to some difference in government treatment which affects the ability of dealers to carry on their business? Emphatically, the latter is the case and if the itinerant trucker be subjected, as he should be, to regulation and taxation to the same extent and of the same kind as the established merchant, the economy of the established marketing and distributing system will be apparent.

Disorganized Markets

Grain enters commercial channels through the country elevators, which buy from farmers in truck loads and sell to other dealers in carloads; their business, therefore, is based upon rail transportation. The inequality presented by the present situation may be illustrated by comparing the costs to which the country elevator is subjected with the costs of its competitor, the itinerant trucker, who largely originates the grain on the farms. The country elevator is subject to personal property and real-estate taxes; insurance to cover buildings, stock of goods, and workmen's compensation; and the usual operating expenses of labor, power, light, fuel, telephone, and building repairs; and the operator either pays rental for his property or must figure the interest on his investment, and must pay a living wage to his help. In addition to these burdens he assumes community expenses, such as for charity and for civic matters.

The itinerant trucker, on the other hand, escapes all taxes except the taxes paid on gasoline used and that, with the registration fee for the truck, represents the total burden, aside from the cost of operating the truck. He does not carry insurance, as a rule, either to cover his own vehicle or possible injuries to others. He works long hours and accepts very low compensation for his services.

The Associated Southwest Country Elevators repre-

sents 8,400 country grain elevators in eight Southwestern states. About three years ago, we received so many complaints from country dealers regarding the operations of the fly-by-night truckers that a questionnaire was sent to every elevator in our organization. The replies were amazing and the loss of business sustained by legitimate dealers was so great that it was obvious that unless relief was secured, this new competition will completely undermine our system of grain marketing. Since then, we have undertaken extensive surveys on the question of the itinerant trucker. Our studies and recommendations received such favorable and widespread publicity that 86 civic and trade associations, representing chambers of commerce, traffic organizations and farm and co-operative groups aligned themselves with us and are sponsoring our activities. These organizations represent merchants handling grain, hay, coal, fruits and vegetables, lumber, flour and commercial feeds, dairy products, seeds, salt, groceries, drugs, etc. Fully one-half the tonnage of Western railroads consists of commodities affected by this competition.

Elevators Closed

It is estimated that 600 country elevators have suspended business in our eight states largely because of the heavy inroads made upon their business by these transient vendors. Country merchants generally have witnessed the bulk of corn and other coarse grains move into and out of their territory by these trucks. Last January, a total of 4,177 itinerant trucks, loaded with grain and grain products, moved into and peddled their cargo in Kansas. This is equivalent to 769 carloads in this one month alone. Much of this movement was corn from Iowa and Nebraska. The Kansas City terminal market has lost approximately 75 per cent of its corn business to truckers. Country dealers in innumerable instances have reduced their handling charges on corn to the losing levels of $\frac{1}{2}$ cent to 1 cent a bushel in an effort to cope with the problem. Itinerant truckers, this season, will handle the largest amount of wheat thus far. One Kansas terminal elevator has bought wheat from 1,166 itinerants in the first six weeks of the present crop year. This quantity is equivalent to 233 carloads and means the loss in this single instance of about \$10,000 in handling charges to country dealers and commission merchants.

One flour mill in Sioux City, Iowa, purchased approximately 750,000 bushels of wheat from truck-peddlers, virtually all of which came from Kansas. The distance from Wichita, Kan., to Sioux City, for instance, is about 500 miles and the rail rate on wheat is $16\frac{1}{4}$ cents a bushel. These trucks are hauling the wheat for 8 to 9 cents a bushel. Here is a truck operation about 100 miles farther than from Winnipeg to Port Arthur.

Kansas City has always been recognized as the nation's largest hay market until the last few years. Carlot arrivals of hay have reached the high mark of 46,559 cars in a single season, with 61 large enterprising hay dealers carrying on this business in the Kansas City market. The receipts of hay in this market by railroad

* From an address delivered by Frank M. Stoll, secretary, Associated Southwest Country Elevators before the annual convention of the Grain and Feed Dealers Association, at Toronto, Ont.

in the first six months of this year were less than 1,000 cars and only 17 of these 61 firms remain in business. There is just as much hay grown and just as much hay being moved, but it is all being moved by itinerant truckers who are taking it across country from producers to feeders. In those sections where large quantities of hay have been transported by truck, the low grade hay that would not ordinarily move through regular trade channels has been bought first and sold to livestock feeders in drought areas at relatively high prices. As soon as the feed business becomes unprofitable, the itinerant trucker will start transporting some other commodity, whereas the railroads and the established trade must serve through lean and fat years alike and meet this unorganized and unbusinesslike competition. Another objectionable feature to the transportation of hay and feed grains by truck is that practically all of the shipments are bought and sold without due regard to grade or quality.

Lumber and Coal

Wholesale and retail lumber merchants complain bitterly of the itinerant peddler's activities. For instance, in the state of Nebraska last year about 1½ million feet of lumber was brought in by itinerants and sold to anyone who would buy anything from a board to a truck load at any price they could secure. Here is business valued at about \$600,000 a year of which established dealers are being deprived. The itinerant-merchant law, introduced in Nebraska by our association, which has been in effect since last November, has reduced itinerant transportation of coal and building materials at least 30 per cent. To illustrate how irresponsible these roving merchants are, many of them have been forced to cease operations on account of their inability to post a surety bond of \$250 required by this law.

In Illinois, 3½ million tons of coal were moved by these truckers in 1931. In 1936, this total leaped to 7½ million tons, which was approximately 15 per cent of the coal mined. More than 350 established coal dealers in this state alone have been put out of business due to operations of itinerant truckers. There are several counties in Southern Illinois that do not have any dealers whatever and in Central Illinois there are some counties with only one to three equipped dealers in business. In these same counties a few years ago, from 15 to 20 dealers were operating.

In the merchandising of fruits and vegetables, a most serious and chaotic condition has resulted from these itinerants. They have caused a demoralization of the price structure; undermined regular distributing channels; lowered grades and standards built up by produce interests over a long period of years; created disorderly marketing; lowered prices to producers and have diverted a tremendous tonnage from the rails and reputable for-hire truck interests.

Joplin, Mo., a town of 34,000 population, established, a few years ago, a municipally owned city market for the benefit of producers. Today this produce market has developed into what is probably the largest itinerant peddling center in the middlewest. Only one wholesale fruit and vegetable dealer remains in business there. In the last 12 months, 33,800 truckloads of produce had been peddled in that market, coming from every state in the union except five, and, in addition, several truckloads of pineapples from Old Mexico, a distance of 1,600 miles. This merchandise was valued at 3 million dollars. Grocers and other merchants within a radius of 50 miles of Joplin have held one mass meeting after another, protesting against the unrestricted operations of itinerant truckers in the Joplin market. In this small middle-

western market alone, the revenue on 10,000 carloads of produce is being diverted from railroads and established dealers annually.

The railroads must co-operate better with shippers in establishing truck-compelled rates and remove the many discriminatory and unfair differentials. However, the relief we seek from the unfair truck competition cannot be realized to our satisfaction in the lowering of freight rates. Of course, a reduction in rail rates would be beneficial in recapturing some traffic, but the problem is primarily one of equitable regulation of trucks rather than decreased rail charges. The railroads have a right to insist upon an equality of treatment of the two classes of dealers before they are required to make any radical change in their rates. It would be difficult to find bottom in the matter of reducing rail rates, and in the present condition of the railroads, it is doubtful that any governmental commission could require a reduction anywhere near approaching that which would be necessary to equalize the costs of the established dealer with the itinerant trucker.

Suggested Remedies

Therefore, at the present time, greater consideration is being given to the necessity of either relieving established dealers of some of their burdens or applying the same principles of regulation and taxation to their competitors. In this day of increasing regulation and ever-mounting taxation, it seems futile to suggest the former course, and, therefore, most attention is being given to the necessity of bringing this new industry, the itinerant-trucker-merchant, within the general policy of government in respect to these matters.

In approaching that problem, we have considered that the itinerant is both a merchant and a hauler, and we have concluded, first, that as a merchant he should be required to do certain things:

- Require the itinerant who expects to buy or sell to register such intention with the secretary of state in every state in which he transacts business.

- Require payment of an occupational license for the privilege of doing business as an itinerant merchant.

- Require public liability insurance to cover personal injuries and property damage to others.

- Require surety or fidelity bonds to indemnify the public against fraud and to insure payment of taxes.

- Prohibit offering any commodities for sale by grade or making any representations as to grade where official state or federal standards for determining quality or grade exist.

We hold to the view that the highways have been built primarily for private use and that when they are utilized by dealers for purposes of profit, a different measure of compensation should be required and such compensation should be based upon the use made of the highways—in other words, the levying of a tax upon a ton-mile basis. By this means, the state could be fully compensated for excessive damage done to highways by heavy trucks and for the greater initial costs of building wider and stronger pavements for the use of these heavy vehicles.

Closely connected with this phase of the subject is the matter of reciprocal exemptions by states from payment of license fees. Reciprocity in this respect has been carried to an unreasonable length. Such measures are logical and desirable in respect to passenger cars, but cannot be justified in respect to freight carriers. Payment of a registration fee in one state does not compensate another state for the use of its highways, particularly when there is a difference in the fees. An outstanding example of such a difference is that between

the states of Missouri and Iowa. In Missouri, the registration fee for trucks is about \$10.50 per vehicle, while in Iowa, the fee for a truck rated to carry 300 bushels of corn is \$250.

Some dealers have purchased trucks to combat the competition in their immediate trade territory, but country dealers are generally reluctant to go into the trucking business, except for local delivery purposes, on account of the expensive upkeep of the vehicles. The unprofitableness of itinerant trucking operations is manifested in the large number of repossessions by finance companies. However, the number of itinerants on the highways is showing a substantial increase and where one trucker quits business two new ones enter the field.

Bureau of Safety Annual Report

WASHINGTON, D. C.

THE annual report of Director W. J. Patterson of the Interstate Commerce Commission's Bureau of Safety for the fiscal year ended June 30, 1938, is a 46-page pamphlet setting forth in the usual form results of inspection of safety-appliance equipment on railroads together with information on the hours-of-service records of employees, installations of signals, interlocking and automatic train-control devices, investigation of accidents, and other activities of the Bureau.

During the year under review a total of 1,213,081 cars and locomotives was inspected; 29,286 or 2.41 per cent were found defective as compared with the 2.31 per cent defective out of the 1,203,752 inspected in 1936-37. While last year's showing was thus less favorable than that of the previous year it was better than the record for 1935-36 when 2.44 per cent of the rolling-stock units inspected were found defective.

Air-Brake Tests

Air-brake tests were made on 2,753 trains, consisting of 116,290 cars, prepared for departure from terminals; air brakes were found operative on 116,177 of these cars, or 99.9 per cent of the total. This percentage, however, was attained only after 868 cars having defective or inoperative brakes had been set out, and repairs had been made to the brakes of 807 other cars in the trains. In this connection the Bureau observed that "it was found necessary to set out cars or repair the brakes on an average of three cars for practically every five trains" tested by the inspectors. Similar tests on 829 trains arriving at terminals with 40,893 cars showed that brakes were operative on 98.12 per cent of the cars—the cars with inoperative brakes averaging slightly less than one per train.

As did the previous one the present report notes that the work of equipping cars with AB brakes "is not progressing as scheduled." Attention is again called to the 10-year period allotted for making "this important improvement," the Association of American Railroads rule having been adopted January 1, 1935, with a January 1, 1945, deadline. "During 3½ years, or 35 per cent of the 10-year period," says the report, "only 11.3 per cent of the freight cars in interchange service have been equipped with the present standard air-brake apparatus." This 11.3 per cent, reflecting the situation as of June 30, 1938, is a composite figure, representing 11.86 per cent of the railroad-owned cars and 7.6 per

cent of those owned by private car lines. In 1937-38, 79,448 cars were equipped with the AB brake, as compared with 97,403 in 1936-37. The reports show that 13 railroads and 19 private car lines have 30 per cent of their cars so equipped; but "107 railroads and 122 private car lines have not as yet reported any cars so equipped."

Additional tests were conducted in June and August, 1938, with respect to the cleaning period for AB brake equipment, which has been tentatively fixed at 36 months. While "valuable information" was thus obtained, the Bureau sees a need for "further comprehensive consideration of AB equipment which failed and had to be removed for repairs or cleaning after less than 36 months service . . . in order to determine the question of a proper cleaning period for these brakes under actual service conditions."

Meanwhile, "material improvement has been noted in the efficiency of hand-brake equipment on passenger cars, as a result of the adoption of rules . . . governing inspection and maintenance" of such equipment. Also, "co-operative efforts" with the A. A. R. have continued "for improving the conditions of couplers, draft gears and their attachments and supports." During the 15 months prior to June 30, 1938, there was no accident investigated by the Bureau in which free slack in draft gears or defective supports was found to be the cause or a contributing factor. "However," the report adds, "the large number of break-in-twos of trains, due to slipovers of knuckles, indicates that additional improvement is essential."

Eliminating "Inferior and Obsolete" Couplers

The Bureau has called the A. A. R.'s attention to the "urgent need" for establishing "a standard and a maximum permissible vertical movement of the coupler head from the position at which its standard height is determined." Co-operative action to eliminate "inferior and obsolete" couplers has resulted in the recent adoption of an A. A. R. rule whereby cars equipped with "5 by 5 shank" couplers will be barred from interchange after January 1, 1940, while a January 1, 1942, deadline has been set for cars equipped with "old type MCB couplers with 5 by 7 shanks."

Discussing the arch-bar truck the report cites a December, 1937, accident wherein "the hazard of their use was again forcibly demonstrated." Note is taken of the extension of the A. A. R. deadline in this connection to January 1, 1939 (it has since been extended to July 1). "Accumulated experience," the report adds, "plainly indicates the need of extreme precautions with these obsolete trucks during their remaining period of service."

As in other recent years the report includes a brief discussion of braking methods and apparatus for high-speed streamlined trains. After noting that the Bureau has joined with the railroads and brake manufacturers in several tests, the report adds: "Brake performance on high-speed trains in service has not developed results on a parity with results obtained on conventional equipment at lesser speeds. Means of preventing destructive temperatures of both the brake shoes and the wheels resulting from the increase of braking force necessary to control trains operated at extremely high speeds so as to maintain a degree of efficiency and safety equivalent to that provided at the lower speeds which generally prevail have not been satisfactorily developed. Experiments employing means other than applying the braking force to the treads of the wheels and thereby relieving the wheels of the dangers incident to excessive

heating, are also being carried on and the results are being duly observed and considered by the Bureau. Experiments and tests in both service and emergency braking on high speed trains will be continued in order to determine the greatest degree of efficiency which it is practicable to attain."

During the 1937-38 fiscal year, 178 of the 796 roads filing hours-of-service returns, reported a total of 4,532 instances of all classes of excess service—less than half the 9,300 instances reported for 1936-37. Wrecking and relief service, derailments and adverse weather conditions were in order the three most important causes of 1937-38's excess service.

Signaling Standards Under Consideration

As of January 1, 1938, there were 64,198 miles of road (94,883 miles of track) equipped with automatic block signals. On the same date there were 10,400 miles of road (20,160 miles of track) equipped with automatic train stop, train control and cab signal devices of the intermittent or continuous type. Under the so-called signal inspection law—one of railroad labor's "make-work" measures which was enacted in 1937—a total of 222 carriers have filed rules, standards and instructions which were in effect on their respective lines with respect to the installation, inspection, maintenance and repair of signal devices. These rules, the report says, "are being considered for the purpose of determining whether the rules as filed by the individual carriers should be approved by the commission, or whether modifications should be required, or whether a code of rules which will be applicable to all carriers should be prepared and prescribed by the commission."

Alleged violations of the safety-appliance laws in 43 cases, comprising 97 counts, were transmitted to United States attorneys during the year; also, five cases, comprising 27 counts alleging hours-of-service law violations. On June 30, 1938, there were pending in the various district courts 35 safety-appliance cases containing 77 counts, and three hours-of-service cases containing nine counts.

The report's section on the Bureau's accident-investigation work reveals that during the first six months of 1938 railroad accidents brought death to 54 passengers, two travelers not on trains and 234 employees on duty. During the whole fiscal year there were 1,469 collisions and 3,823 derailments reported to the I. C. C.; in these, 195 persons were killed and 1,115 injured, as compared with 210 killed and 1,277 injured in the 1,940 collisions and 5,050 derailments reported in the previous fiscal year ended June 30, 1937. The year's work of the Bureau included 1,752 man-days devoted to investigations of accidents.

THE REVISED STANDARD CODES of operating and block signal and interlocking rules, as adopted November, 1938, have recently been issued by the Operations and Maintenance department, Association of American Railroads. Few essential changes have been made in either set of rules, which were last published in January, 1928, and revision is confined largely to bringing the language of the codes up to date. Thus, in block signal rules, six recently adopted signal indications, such as "advance approach medium" and "approach limited" have been added; "cab signal" has been included in the definitions and automatic block signal rules have been modified to cover the device. Principal omissions in the revision are the dropping of the so-called controlled manual block system from definitions, and the rules applicable thereto, and discontinuance of several rules regarding the parting of trains.

Depletion of Inventories Grows

CONTINUED consumption of material at a more rapid rate than replenishment, and greater depletion of reserves than has been shown thus far are indicated by the more complete reports of railway purchases and inventories which are now available for November and December. According to the latest figures, inventories of the Class I railways totaled \$322,796,000 on November 1, or approximately \$7,000,000 less than on October 1, while the inventories declined still further to \$319,421,000, on December 1, a figure approximately \$65,634,000 below that for January 1, 1938, notwithstanding a \$3,600,000 swell in fuel stocks and an increase of \$2,750,000 in tie inventories during November.

Fuel on hand on December 1 amounted to \$23,655,000; new and second hand rail amounted to \$26,388,000, and cross tie stocks totaled \$59,007,000. Stocks of miscellaneous materials totaled \$210,749,000 on November 1 or approximately \$2,000,000 below the total on October 1 while the total on December 1 was approximately \$201,616,000, according to present figures—a decline of approximately \$9,000,000 from November 1, and a decline of \$54,097,000 from January 1, 1938. The corresponding total was \$170,688,000 on January 1, 1936 and \$197,899,000 on January 1, 1937.

As the figures now stand, the consumption of materials from manufacturers declined from \$35,509,000 in October to \$33,022,000 in November, after rising month by month from a low of \$25,824,000 last February, but \$5,000,000 more material was used in November than was received from manufacturers in November and the consumption of material from manufacturers during the eleven months, totaling \$361,090,000, was \$54,215,000 more than was received from manufacturers during the same period.

Efficient Use of Locomotives

(Continued from page 159)

A fully balanced operation will secure the maximum utilization of motive power.

Discussion

In opening the discussion of this report W. A. Aiken, R. F. & P., stated that, by the use of locomotives adapted to both passenger and freight service, his road has substantially reduced locomotive lay-over time at terminals. The adjustment of tonnage for high speed freight service has also reduced water stops and saved road delays, while the schedule for federal inspections and boiler washings has been worked out so that no large number of locomotives is ever out of service for these purposes at one time and particularly not in peak periods.

P. M. Shoemaker (N. Y. N. H. & H.) stated that arbitrarily cutting down the number of locomotives in service is the most efficient means of increasing locomotive mileage. He said that this can be carried still further by careful supervision of locomotives in work train service and by using engines for both switching and road service. It also developed in the discussion that some railroads, including the Erie, the Pennsylvania and the Baltimore & Ohio are effecting savings by transporting crews to outlying points by automobile instead of by train.

NEWS

"In" for Local Interests Urged

Eastman shapes talk on rail ills about Rutland case; advises home representation

An address whose first half described the decline of railroad power, especially in politics, and cited diverse changes in operating techniques and rate structure, and whose second half combed through local transportation problems as applied to the much-publicized Rutland situation, was delivered on January 12 by Interstate Commerce Commissioner Joseph B. Eastman, before the Vermont State Chamber of Commerce, at Montpelier, Vt. Titling his talk "The Vermont Railroad Problem," the speaker first reminisced in informal fashion on changes in the railroad status since he first became familiar with the New England railroad situation, describing in particular the great political power which the roads then enjoyed. Since that time, he pointed out, the political power has passed, "and the employees rather than the owners seem to have fallen heir to such as is left."

Shifting to a discussion of competitive factors, Mr. Eastman was of the opinion that other carriers as well as the railroads suffer from financial ill-health and cited the pipe lines and "a few of the larger bus companies" as the only transportation agencies that have prospered. And while he would not minimize the importance of investigating the allegations of unfair advantage accruing to railroad competitors, he anticipated "that even if the railroads get all they can reasonably ask along these lines, they will find results somewhat disappointing."

The commissioner believed that greater hope for the roads lies "principally in developing the greatest possible efficiency in their own operations." Among such possibilities he included "the continued improvement of their motive power, equipment, and other facilities, not only to reduce expense, but to give shippers and travellers the speedy, convenient service which they want; the elimination through consolidation and coordination of the unnecessary and wasteful operations which still abound in the railroad industry; a thorough-going readjustment to present-day conditions of the very complex system of rates and charges which grew up under the very different conditions of the past; and the utilization of other means of transportation where they can do the job better than rail operations."

As for consolidation, the former federal

Unions Still 'Agin' Merger in Canada

Opposition to any proposals for co-ordinating, consolidating, unifying or amalgamating the railway systems of Canada was reaffirmed by the Dominion joint legislative committee of the 18 standard railroad labor organizations at a recent meeting in Ottawa.

Such proposals are not the best means of solving the railway problem, the committee said. Continuing, the resolution, which affirms previous decisions, reads:

"That the best means of relieving Canada of its financial burdens consequent to the railway situation is for the federal government to become clothed with the necessary legislative competence to deal effectively by regulations and control of all forms of transportation of passengers and freight for hire, together with a like legislative competence to deal with all related factors in transport enterprises within the Dominion of Canada."

co-ordinator of transportation declared that, as a result of his intensive observations in that post, he "entertained no doubt that conditions are such that no really effective program of railroad consolidation and co-ordination can be accomplished without the aid of active intervention, promotion, and perhaps compulsion by the federal government." In short, he said, "the government must provide the leadership and driving force."

Coming to Vermont's problem in particular, Mr. Eastman pointed to the Rutland as "an object lesson of the greatest possible value to the entire country," specifically because of the local nature of its problems. He then "took his hat off" to Vermont for what the court, interested shippers and employees have already accomplished in keeping the wheels of the Rutland rolling, citing the instant gathering as evidence of the interest of the state in railroad affairs.

The Rutland has suffered from "absentee control," the commissioner declared. "No doubt the intentions have been good, but the road has been a step-child of foreign parents. It needs watchful and devoted home care. If it is at all possible, I sincerely hope that when the Rutland is reorganized, steps may be taken to ensure strong local representation in the direction

(Continued on page 171)

I.C.C. Wants Order on "Postalization"

Caskie says commission should have Congressional mandate to study proposal

Chairman Marion M. Caskie of the Interstate Commerce Commission has written to Senator Wheeler in answer to the latter's letter asking for the commission's opinion of the Hastings Postalized Rate Plan, saying that the commission would prefer a mandate from Congress before it undertakes a comprehensive study of the plan. Chairman Caskie told Senator Wheeler that "It is quite evident that the plan contemplates a very revolutionary change in the methods of charging for railroad passenger service, and adequate replies to the inquiries contained in your letter would require a searching and extensive investigation."

Chairman Caskie then pointed out that Mr. Hastings' plan proposed that the federal government guarantee the railroads against loss in the event that the plan is made effective. "This is in itself," he continued, "an indication of the essentially experimental nature of the plan." He then told the Senator that such a guarantee would require new legislation and that regardless of whether or not an investigation should lead the commission to a favorable conclusion regarding the plan, the commission could not, under the present statute, order its adoption.

In concluding his letter to the Montanan, Chairman Caskie said that "In view of the extensive character and expense of the investigation which would be necessary, we suggest the desirability of a mandate to the commission from Congress authorizing and directing it to enter upon this undertaking. Such a mandate could be given in a joint resolution. You will recall that a similar suggestion was made in a letter which the Federal Coordinator of Transportation sent to you on July 15, 1935, in regard to the Hastings plan." Coordinator Eastman's letter to Senator Wheeler was digested in the *Railway Age* for August 10, 1935, page 193.

Also the Commission has refused to reopen the Eastern Passenger Fares case in order that Mr. Hastings might introduce testimony in favor of his plan. The commission announcement gave no reason for the denial of Mr. Hastings' petition other than that there was "good cause appearing."

(Continued on page 172)

Motor Transport As Railroad Aid

Western Railway Club considers co-ordinated service at St. Louis meeting

The importance of rail-highway co-ordination to the country's transportation was the subject of a symposium presented at a meeting of the Western Railway Club in St. Louis on January 16, by W. G. Degelow, assistant general freight agent, St. Louis Southwestern, as to freight traffic; P. J. Neff, assistant chief traffic officer, Missouri Pacific, as to passenger traffic; and Wade T. Childress, president, Columbia Terminals Company, as to terminal handling.

The meeting was transferred to St. Louis from the usual meeting place in Chicago because of the increasing interest in the club by St. Louis railway and railway supply officers, and also in recognition of the pioneering work done by the railways in St. Louis and the Southwest in the field of rail-highway co-ordination. A special train, with 167 members aboard, was run from Chicago by the Illinois Central, and with members and guests from St. Louis and vicinity, the total attendance was more than 900.

Mr. Degelow outlined the co-ordination employed on the Cotton Belt whereby fast merchandise schedules are set up for rail movement to and from the large jobbing centers and the merchandise is then fanned out to local main line stations and to points on branch lines by truck, resulting in the type of service that shippers and receivers want, and saving from 24 to 48 hours in the delivery of merchandise in many cases.

Mr. Neff told of the manner in which the Missouri Pacific's subsidiary bus line handles co-ordinated passenger traffic, stating that nearly 1,000 passengers daily are handled in joint rail-highway movement. He also explained that, while the bus subsidiary competes directly with the railway in many cases, the Missouri Pacific felt that, as the traditional transportation company in the territory it serves, it should give the passenger the type of service he desired, and many passengers preferred riding on rubber to riding on rails.

Mr. Childress stated that terminal areas have grown far beyond the yard limits in recent years, extending now to smaller cities within 50 to 75 miles of the metropolitan centers, and that these cities expect the same fast service that is accorded the big shipping centers. The increased use of the motor truck in terminal freight handling is the only answer to this extension of the terminal areas, according to Mr. Childress, who explained how the greater flexibility of highway service could be allied to rail service to good advantage.

E. A. Clifford, general purchasing agent, Chicago & North Western, and president of the club, stated in his opening address:

"The use of highway vehicles as an adjunct to railway transportation is a relatively new development. Until a decade ago, the railways made little or no use of

motor transport in any form. In general they regarded it with hostility. It gradually became apparent, however, that, if the railways were to survive under the subsidized and still largely unregulated competition they were facing, it would be necessary to provide an equivalent or better service than that provided by their competitors, which could frequently be done only through the use of motor vehicles as an adjunct to rail transportation.

"Once the railways began to adopt motor transport, their utilization of it proceeded rapidly until today approximately 112,000 highway freight units are engaged exclusively in railway service in the United States. This includes inter-city trucks operated directly by the railways, collection and delivery trucks either operated directly or under contract, and the large and increasing number of trucks used by the railways in non-revenue service, by the maintenance, mechanical and stores departments. Today, 32 different railways are each operating fleets of more than 100 highway freight vehicles in co-ordinated service, and the number is rapidly increasing.

"A similar growth has taken place in highway passenger transportation in the past decade. The two large national bus systems, the Greyhound Lines and the National Trailways consist of many constituent companies either wholly or partly owned by the railways, and the National Trailways was largely the creation of the Burlington, the Santa Fe and the Missouri Pacific. The railways are also using more and more buses in train connection service, such as the Baltimore & Ohio between Jersey City and New York; the Santa Fe between Oakland and San Francisco across the Bay bridge, and the Union Pacific between East Los Angeles and a number of cities in the Los Angeles metropolitan area. Many of the large bus systems operating in our national parks are also under railway ownership or control, and more roads each year are providing so-called bus "detours", whereby rail passengers may break their journey for a bus ride to reach some otherwise inaccessible spot of scenic beauty or historic interest."

The papers of the other speakers will be presented in greater detail in early issues of the *Railway Age*.

Mid-West Board Meeting

The Mid-West Shippers' Advisory Board held its annual meeting at Chicago on January 12. A resolution calling for the discontinuance of land grant rates was passed. At a joint luncheon with the Traffic Club of Chicago, Samuel B. Pettengill, former representative from Indiana, spoke on Starving the Iron Horse.

Cook Reappointed to National Mediation Board

President Roosevelt has sent to the Senate the name of George A. Cook for re-appointment to the National Mediation Board for the term expiring February 1, 1942. Mr. Cook, former secretary of the Board, succeeded to the membership of the late James W. Carmalt who died in December, 1937.

Roads Must Spend To Reduce Costs

Gormley sees further outlays offering best prospects for new economies

Further large capital outlays offer the best prospects for continued reductions in railroad operating expenses, according to M. J. Gormley, executive assistant of the Association of American Railroads who expressed his views on that subject in brief extemporaneous remarks which he made last week at the fifteenth annual meeting of the Atlantic States Shippers Advisory Board in Baltimore, Md. Donald D. Conn, executive vice-president of the Transportation Association of America, speaking at the luncheon held on January 12, called upon the shippers to accept their "share of responsibility for present conditions in the transportation industry," he added that "the compelling task ahead of us requires more tolerance, greater breadth of vision and a greater cooperation than ever between agencies of transport and between transport and shipper if private ownership is to prevail."

Among other proceedings at the meeting was the election of officers, the adoption of a resolution urging repeal of land-grant rates and the appointment of a special committee to investigate the St. Lawrence seaway. In the latter connection an address on this waterway was delivered at one of the sessions by Cornelius H. Callaghan, manager of the Maritime Association of the Port of New York. It was Mr. Callaghan's view that "there can be little justification from a navigation standpoint for this improvement, which can only afford transportation facilities for a little more than half a year and which will disrupt and demoralize the transportation systems of the United States, land and water, and disastrously affect the economic welfare of the country."

At the election G. F. Hichborn, general traffic manager for U. S. Rubber Products, Inc., New York, was elected general chairman to succeed J. K. Hiltner, traffic manager for U. S. Pipe & Foundry Company, Burlington, N. J. Mr. Hichborn moved up from the position of first alternate general chairman and was succeeded in that position by C. J. Goodyear, traffic manager for Philadelphia & Reading Coal & Iron Company, Philadelphia, Pa., who had been second alternate general chairman. Elected to the latter position was A. C. Welch, transportation secretary for the Brooklyn (N. Y.) Chamber of Commerce, while W. W. Pierce, traffic manager for the Pyrene Manufacturing Company, Newark, N. J., was re-elected general secretary. W. L. Harvey continues as secretary with headquarters as before at 30 Vesey street, New York.

More than 300 persons attended the meeting of the freight loss and damage prevention committee which was held on the evening of January 11. This meeting marked the official opening of a campaign to find a universal symbol for "fragility." The contest will close March 11. Also dis-

cussed were plans for another observance of April as "Perfect Shipping Month," in which connection it was decided to maintain as permanent committees those selected to arrange for the Atlantic Board's participation in this event. Meanwhile throughout the sessions talks were made on different subjects of interest to shippers, including that by E. H. DeGroot, Jr., director of the Interstate Commerce Commission's Bureau of Service, who explained the functions and workings of that Bureau.

Reporting on the adequacy of railroad equipment to meet 1939 demands, C. J. Fagg, manager of the Newark (N. J.) Chamber of Commerce's Commerce & Trade Bureau expressed some misgivings as to the situation, but was assured by W. C. Kendall, chairman of the Car Service Division, that the A. A. R. is "not in the slightest degree nervous" about what the railroads will be up against in 1939. He added that there is "no peak back to 1930" that could not now be handled; and if the 1939 requirements are more than that the railroads "will praise the day" and "find ways to meet the situation."

In making his above-mentioned reference to the need for continued capital expenditures Mr. Gormley said that the railroads must have earnings which build their credit to the point where they can continue to obtain the necessary capital, adding that in his opinion "the next year will be the most vital one for all transportation in the United States—it depends upon Congress whether we'll have a transportation policy." And the A. A. R. executive assistant hopes the Advisory Boards will "make this matter their business," because "whether the railroads go into government ownership or not depends more than ever upon shippers."

Mr. Conn outlined the purposes of the Transportation Association of America and continued to give his own views with respect to some of the recommendations of President Roosevelt's railroad committee-of-six. Then he went on to say "a few words as to our responsibilities to the present crisis in the industry."

"We are not dealing with a transportation problem alone—we are confronted with a national credit crisis due to our treatment of transportation," Mr. Conn said. "Private enterprise cannot be sustained in this field under present conditions. The public are unwilling to pay the price. The financial collapse of the railroads has been one of the most important factors in the duration and depth of the depression we have been in since 1929. It is difficult to exaggerate the deflationary effect of the disaster that has taken place in the largest and most important form of corporate enterprise in the United States. Most of the schemes and proposals to restore railroad credit and to again persuade all of us to invest in this industry are along coercive lines. The very people who ask the public to be realistic and write off their investments as a loss seem to assume that they are going to come back for more and invest their savings again in this very industry. This is exactly what is proposed by those who suggest that the railroads be put 'through the wringer'. And, they advance the theory that over-capitalization represents one of the serious

B. & O. Interest Plan Declared Operative

The Baltimore & Ohio's plan for modification of interest charges and maturities was declared operative at a board of directors meeting held in Baltimore, Md., on January 18. As of the close of business on that date, 73.54 per cent of the obligations affected had become subject to the plan by assent. The plan originally provided that the road might declare it operative whenever the board deems that sufficient assents are received to make it advisable to do so, whether or not the assents are sufficient to carry out the plan.

The plan, dated August 15, 1938, provides for reduction of fixed interest of the road and subsidiaries from \$31,421,742 to \$19,644,679 and places \$11,376,435 of present fixed interest on a contingent basis. The plan was summarized in the *Railway Age* of September 10, page 390.

ills, that freight rates have been established to permit a return on fictitious capital. Both are mere assumptions and neither is true. The debt ratio of the railroads has declined from 59 per cent to 49 per cent since 1911 and fixed charges measured in relation to gross revenues are 40 per cent less in this depression than in the depression of the 90's. During the first seven years of the century, when railroad credit was at its peak, and their bonds were considered the highest type of corporate investment, approximately 24 cents out of the dollar paid by the shipper was required for fixed charges. In 1937, only 15 cents was so required.

"The question presented is how it is possible for the railroad industry to become so powerful as to require regulation to prevent excessive earnings and in spite of this power to suffer a financial collapse because of inadequate earnings. In parallel with the reduction of interest charges, the railroads have reduced their expense per 1000 revenue ton-miles from \$10.78 in 1921 to \$6.40 in 1936. If we multiplied these savings by the total ton-miles of Class I railroads, we would find that the reduction in freight transportation expense in 1937 as compared to 1921 amounts to nearly one and one-half billion dollars. The puzzle, therefore, is how the railroads in 1937 earned only 600 million dollars net, when the savings since 1921 amount to nearly one and one-half billion dollars. As I recently said, and some of the shippers naturally didn't like it, but which I repeat here for emphasis sake, the revenue per ton-mile is too low. The cycle of commodity prices was about the same in 1937 as it was in 1921. If the same revenue per ton-mile had been received in 1937 as was actually received in 1921, and everything else had remained the same, the net railway operating income would have been over one billion 600 million dol-

lars. It was not a question of whether the traffic could bear it because the traffic did bear it on the same level of prices in 1921. Had the railroads received this additional revenue we would not now be concerned about low interest loans from the R. F. C. or rate-making rules."

In addition to the assurances with respect to the car supply, the above-mentioned discussion of this matter brought from Mr. Kendall some comment on the present car surplus and the bad order situation. At the 1938 peak, he said, the railroads had a surplus of from 100,000 to 150,000 cars; and he estimated on the basis of "proven formulae" that the carriers now have a car ownership capable of handling a peak of 800,000 cars per week. This, he pointed out, would be 17.5 per cent above the 1938 peak week, and he went on to list such factors as increased efficiency in utilization which "give further margin." Also, the A. A. R. feels that "there is just as much reason for optimism" regarding the locomotive situation. Mr. Fagg's "viewing with alarm" had included a suggestion that the Board's forecast of car requirements might well be put on a one-month basis, instead of the present quarterly one. This was "a new idea" to Mr. Kendall and before considering it he would like to hear "more substantial reasons" in its favor. When Mr. Fagg calculated that two successive 10 per cent quarterly increases in loadings over 1938 would bring a shortage of 40,000 cars, Mr. Kendall replied that the railroads had never experienced "any such upward trend" as Mr. Fagg outlined.

In response to a question Mr. Kendall estimated that about 25,000 of the 232,000 bad-order cars have already been scheduled for retirement. He added that probably a "substantial number" of the remainder will never be repaired, although he had previously said that the bad order rolls will be reduced "to meet any need."

As noted in the *Railway Age* of December 31, 1938, when the forecast for the country was published, the Atlantic Board expects the loadings in its territory for the first quarter of 1939 to be approximately five per cent above the actual loadings for the corresponding quarter of 1938. This estimate contemplates that shipments of all commodities reporting will equal or exceed those of last year, except fresh fruits, other than citrus; fresh vegetables, other than potatoes; gravel, sand and stone; sugar, syrup and molasses; and machinery and boilers, which are expected to be down from one to five per cent.

Rock Island Affiliate Would Buy Truck Line

The Rock Island Motor Transit Company, affiliate of the Chicago, Rock Island & Pacific, has applied to the Interstate Commerce Commission for authority to purchase for \$14,000 operating rights and certain property of A. & A. Truck Lines on a route between Hutchinson, Kans., and Dodge City.

Scrap Dealers Elect Officers

At the annual meeting of the Institute of Scrap Iron & Steel held at St. Louis, Mo.,

on January 12, the following officers were elected: President, Joseph E. Jacobson, district manager of Luria Bros. & Company, Inc., Pittsburgh, Pa.; vice-president, Louis J. Borinstein of A. Borinstein, Indianapolis, Ind.; secretary, re-elected, George L. Sturm, and treasurer, re-elected, Thomas F. Kelly.

Proposed Rate for Lake Cargo Coal Moving Through Chicago

Railroads serving mines in Western Kentucky and Southern Illinois have filed with the Interstate Commerce Commission a tariff proposing a rate of \$1.55 per ton for lake cargo coal moving through Chicago. The present comparable rate is \$1.90 per ton. Northern West Virginia coal shippers have asked the commission to suspend the tariff.

Canadian Traffic Men to Hold Annual Meeting

The Canadian Industrial Traffic League will hold its annual convention on January 25 and 26 at the Royal Connaught hotel, Hamilton, Ont. The executive council will meet on January 25 to discuss reports of standing committees and resolutions will be drawn up for presentation before the general assembly on January 26. Sir Edward Beatty, chairman and president of the Canadian Pacific, will be the guest speaker at the dinner on January 26.

November, 1938, Air Traffic

The 18 scheduled air lines in the United States carried 103,507 revenue passengers during November, 1938, an increase of more than 50 per cent over the same period in 1937, according to the Civil Aeronautics Authority. The revenue passenger load factor for the month was 51.29 per cent, an increase of slightly more than 27 per cent above the November, 1937, figure.

The air lines flew a total of 5,776,499 plane-miles and 41,408,529 revenue passenger-miles, and carried 685,389 pounds of express for a total of 400,357,669 express-pound miles during November, 1938.

Central Greyhound Application

The Central Greyhound Lines, a New York Central affiliate, has asked the Interstate Commerce Commission for authority to issue \$130,000 of 10 year installment notes, to be secured by a real estate mortgage, and proceeds to be used to finance the construction of a garage and office building in Cleveland, Ohio.

At the same time the Pacific Trucking Company, a wholly-owned subsidiary of the Southern Pacific, has asked the commission for authority to acquire control of the Pacific Truck Express by purchase of its capital stock.

N. & W. Prepares Fuel Booklet for Distributors

The Norfolk & Western is distributing 22,000 copies of a 22-page booklet which lists all coal and coke operations along the lines of the road in Virginia, West Virginia and Kentucky to retail coal dealers and distributors throughout the United States and foreign countries. Carrying the

title "List of Coal and Coke Operators on the Norfolk & Western Railway," the publication carries an alphabetical list of all coal and coke operators, (names of operating companies, mine numbers, etc.) in the Pocahontas, Tug River, Upper Buchanan, Thacker, Kenova, Clinch Valley and Virginia districts, and, in addition, alphabetical lists of the operators' selling agents and addresses, stations and other information.

A 24-in. by 38-in. graphic map in eight colors shows each of the mining operations along the Norfolk & Western lines. The cover of the book is black fabrikoid, embossed in gold metallic ink.

Labor Gives Priority Among C. S. & S. L. Claims

Labor claims of more than \$100,000 were given priority over other claims against the Chicago, Springfield & St. Louis in a special master's report filed in Springfield, Ill., on January 16. The case was referred to a special master in 1930 to determine the ranking of various claims against the road. Of the labor claims \$30,000 are unpaid at present. The master also ruled that since additions and betterments made during the receivership increased the value of the properties \$56,000, these improvements should be charged against the bondholders and the money used to pay prior claims. The master found that claims for supplies and material furnished during the six months before the receivership are next in order and take precedence over bondholders claims. Numerous other claims asserted before the master were disallowed.

Fourth-Section Relief on Motor-Rail Rates

The Interstate Commerce Commission, Division 2, has granted the Chicago Great Western fourth-section relief to permit the establishment of motor-rail-motor rates over routes by way of Chicago and St. Paul, Minn., between points within Western Trunk Line territory, and between points in that territory in Minnesota, North Dakota, South Dakota and Wisconsin and points in Official territory. Similar relief was granted as to rates on dairy products, butter, eggs and poultry from points in Iowa, Minnesota and Wisconsin to Chicago and Milwaukee, Wis.

In a brief "concurring" opinion Commissioner McManamy objected to conditions imposed in regard to minimum divisions of the C. G. W.

Would Deny B. T. C. Application to Buy Truck Line

Examiner John S. Higgins of the Bureau of Motor Carriers' Section of Finance, in a proposed report on further hearing, has adhered to his original recommendation that the Interstate Commerce Commission deny applications of Black Hills Stages, Inc., for authority to purchase certain operating rights of Black Hills Transportation Company, and of the Burlington Transportation Company, affiliate of the Chicago, Burlington & Quincy, for authority to acquire joint control of Black Hills Stages.

The Chicago & North Western opposed the granting of the application, in which

connection the examiner's adverse finding included the suggestion that further consideration of the case may be accorded "if the parties desire to submit a revised plan free from the objections discussed, or possibly on a basis reflecting the cooperation of the North Western."

Status of C. & L. E.

The Interstate Commerce Commission has reopened for reargument before the full commission the case involving the status of the Cincinnati & Lake Erie under the Railroad Retirement Act and the Carriers Taxing Act. The reargument will be held at Washington, D. C., on February 17.

Division 3, as noted in the *Railway Age* of August 27, 1938, has held that the C. & L. E. is "more than a street, interurban or suburban electric railway," and thus is not within the exemption provisions of the above-mentioned acts. Commissioner McManamy wrote Division 3's majority report to which Commissioner Porter dissented.

I. C. Seeks Reconsideration of Signal Case

The Illinois Central has asked the Interstate Commerce Commission to reconsider its application for authority to discontinue the use of automatic train-stop and two-indication cab signal devices, and to substitute in lieu thereof three-indication color-light automatic block signals on the way-side of the 122-mile line between Champaign, Ill., and Branch Junction. The commission's adverse decision in this case was noted in the *Railway Age* of October 22, 1938, while the railroad's contentions were set forth in the review of its application which appeared in the *Railway Age* of November 13, 1937.

Western-Southern Class Rates

The Interstate Commerce Commission has issued a supplemental report in No. 26, 510, Western-Southern Class Rates, making certain modification in the original decision which was reviewed in the *Railway Age* of April 30, 1938. The new findings, which adjust some of the key rates and carry specified exemptions from the general requirements to publish classification exceptions, were unopposed except as to the one which finds the Norfolk Southern, Atlantic & North Carolina and Beaufort & Morehead "to be short lines or financially weak lines" entitled to add to standard rates arbitraries similar to those allowed other lines of that character.

The majority report was by Commissioner McManamy, while Chairman Caskie and Commissioner Mahaffie each filed a one-paragraph separate expression "concurring in part." Commissioner Rogers agreed with Chairman Caskie while Commissioners Eastman and Lee did not participate in the disposition of the proceeding.

Burlington Speeds Up Zephyr

The Chicago, Burlington & Quincy, on January 21, will speed up one of its Twin Cities morning Zephyrs so that the train will cover the 431 miles between Chicago and St. Paul, Minn. in 6¼ hr. instead of 6½ hr. and the 441 miles between Chicago and Minneapolis in 6¾ hr. instead of 7

hr. The average speeds will be 68.9 m. p. h. and 65.3 m. p. h. respectively. The train will leave Chicago at 8:45 a. m. instead of 8:00 a. m. and will arrive at St. Paul at 3:00 p. m. instead of 2:30 p. m. and at Minneapolis at 3:30 p. m. instead of 3:00 p. m.

December Employment 1.84 Per Cent Under November

Railway employment fell off 1.84 per cent—from 960,776 to 943,082—during the one-month period from mid-November to mid-December, according to the Interstate Commerce Commission's compilation based on preliminary reports. Meanwhile, however, the index number, based on the 1923-1925 average as 100 and corrected for seasonal variation, was up from 53.4 to 54.1.

The December total was 6.3 per cent under that for December, 1937, with maintenance of equipment and stores forces off 7.79 per cent and the yardmasters, switch-tenders and hostlers group down 7.55 per cent. Both of these were up fractions of one per cent as compared with mid-November, while maintenance of way and structures forces were 8.86 per cent under November and 3.39 per cent under December, 1937. Train and engine service employees were down 7.17 per cent under December, 1937, and 1.08 per cent under mid-November.

December, 1938, Gross 4.9 Per Cent Above 1937

Preliminary reports from 92 Class I railroads, representing 82.8 per cent of total operating revenues, made public January 17 by the Association of American Railroads, show that those roads, in December, 1938, had estimated operating revenues amounting to \$260,807,767 compared with \$248,516,097 in the same month of 1937 and \$310,431,002 in the same month of 1930. The December, 1938 gross was 4.9 per cent above that for December, 1937, but 16.0 per cent below December, 1930.

Freight revenues of the 92 roads in December, 1938, amounted to \$204,502,915 compared with \$190,016,686 in December, 1937, and \$231,341,746 in December, 1930—7.6 per cent above the former but 11.6 per cent below the same month in 1930. Passenger revenues totaled \$32,296,517 compared with \$34,154,856 in December, 1937, and \$47,043,871 in December, 1930—for the month of December, 5.4 per cent below the former, and 31.3 per cent below the same month in 1930.

1938 Locomotive Shipments

The country's principal builders shipped 260 locomotives in 1938, as compared with 519 in 1937 and 156 in 1936, according to reports received by the Bureau of the Census, United States Department of Commerce. Unfilled orders at the end of last year totaled 100 locomotives, as compared with 166 at the close of 1937, and 384 as of December 31, 1936.

The 1938 shipments included 123 steam locomotives, six electrics and 110 Diesel-electrics for domestic service, and 20 steam and one Diesel-electric for export; comparable 1937 figures were 345 steam and 138 Diesel-electrics for domestic service,

and 35 steam and one Diesel-electric for export.

Shipments for December, 1938, totaled 20 locomotives, including three steam and 17 Diesel-electrics, all for domestic service. In December, 1937, the 56 shipped included 20 steam and 13 Diesel-electrics for domestic service, and 23 steam for export.

These figures do not include locomotives built in railroad shops, or "self-propelled cars of any description."

Rivers and Harbors Work

The War Department made public on January 16 a list of "amounts that can be profitably expended during the fiscal year 1940 for river and harbor and flood control work." The amounts thus assigned to proposed new rivers and harbors work total \$102,975,800, while those set up for maintenance on rivers and harbors projects total \$51,738,210.

Topping the amounts for suggested new work is the \$12,944,000 assigned to the Mississippi river between the Missouri river and Minneapolis, Minn.; another \$2,114,000 is set up for maintenance work on this section of the Mississippi. Also according to the list, the Great Lakes-to-Hudson waterway should get \$5,000,000 for new work, while the Missouri river between Kansas City and Sioux City should get \$7,750,000 for new work and \$885,000 for maintenance. New work on the Missouri from the mouth to Kansas City is set up at \$2,135,000, and maintenance at \$2,000,000, while the Department thinks the Illinois waterway needs \$2,622,000 for new work and \$952,000 for maintenance.

Club Meetings

The Traffic Club of Wilmington, Del., will hold its 12th annual dinner on February 1, at the Hotel duPont, Wilmington. E. E. Norris, president of the Southern, will be the guest speaker, and T. B. Curtis, general agent, Charleston & Western Carolina, will act as toastmaster.

The Toronto Railway Club will hold its next meeting on January 23 at the Royal York hotel, Toronto, Ont. I. I. Sylvester, special engineer, Canadian National railways, Montreal, Que., will speak on "The Application of the Diesel Locomotive to Switching Service."

The Traffic Club of Cleveland will hold its annual dinner on February 9 at the Hotel Cleveland, Cleveland, Ohio. C. F. Hood, president of the American Steel & Wire Co., will be toastmaster and Governor J. P. Heil of Wisconsin is to be the principal speaker.

The Traffic Club of Pittsburgh will hold its 38th annual dinner on January 27 at Pittsburgh, Pa. It is expected that 2,000 industrial leaders and transportation executives will attend. Tom M. Girdler, chairman of the board of the Republic Steel Corporation, will act as toastmaster, and C. Wayland Brooks, of Chicago, will be the principal speaker.

Unified French System Closes 2,852 Miles to Passenger Service

Passenger service on more than 2,852 miles of line has been wholly abandoned and partially withdrawn on more than

1,080 miles by the French National Railways, since unification of the French trunk line roads into a single government-operated unit on January 1, 1938, according to an article by an officer of the system appearing in the December issue of the French railroad monthly, "Revue Generale des Chemins de Fer." In addition, it is planned that, by the end of 1938, passenger service will have been abandoned on more than 3,100 miles of line and partially abandoned on about 1,240 miles.

The author emphasizes the fact that in no case has such service been withdrawn unless parallel railroad service is available or motor bus service substituted for the abandoned route. In illustration of the results of this procedure, an appendix analyzes savings accrued through the withdrawal of service on a typical 24.8-mile line having 8 station stops, including two junction points, wherein it is shown that "co-ordination" has reduced annual expenses from 3,453,500 francs to 1,239,200 francs and has transformed a deficit of 1,845,900 francs into a profit of 158,800 francs.

Roosevelt Urges Reconsideration of Florida Ship Canal

President Roosevelt has sent a letter to Chairman Mansfield of the House rivers and harbors committee and to Chairman Bailey of the Senate commerce committee in which he asked for a renewal of consideration of the Florida ship canal. The President said in his letters that the canal will be built some day and "the building is justified today by commercial and military needs". He went on to say that "As you know, it has been my thought that the government should continue its construction, but should take its time in doing this, using as far as possible, relief labor, especially in periods when there is a good deal of unemployment. I would not personally object to a construction period lasting as long as 10 or 15 years. This canal will, according to the engineers, receive in tolls enough revenue to pay for its upkeep and over a period of years to amortize its cost, though it is doubtful that these revenues would take care of accumulated interest charges. In other words, the government would get its money back without interest."

At his January 17 press conference the President was asked what progress had been made on the revision of the St. Lawrence seaway treaty. He said that some progress was being made.

R. L. E. A. Endorses Committee-of-Six Report

The Railway Labor Executives' Association, meeting in Washington, D. C., last week, endorsed the report of President Roosevelt's railroad committee-of-six, reaffirmed its opposition to the St. Lawrence seaway and appointed a committee to deal with proposed amendments to the Railroad Retirement Act. The three labor members of the committee-of-six, were named as a committee to keep in touch with any proposed transport legislation; thus members of this committee are R. L. E. A. Chairman George M. Harrison, D. B. Robertson, president of the Brotherhood of Loco-

motive Firemen & Enginemen, and B. M. Jewell, president of the American Federation of Labor's Railway Employees' Department.

The special committee on railroad pensions consists of Mr. Jewell, T. C. Cashen, president of the Switchmen's Union, A. E. Lyon, president of the Brotherhood of Railroad Signalmen, and S. J. Hogan, president of the Marine Engineers. As pointed out previously in *Railway Age* the standard railway labor organizations have been concerned about proposals to liberalize the retirement system, which they contend is now financed to carry only the present benefits.

Boston, Mass., Commercial Zone

Examiner Paul R. Naefe has recommended in a proposed report that the Interstate Commerce Commission should find for purposes of Motor Carrier Act administration that the commercial zone of Boston, Mass., is the area within the corporate limits of Boston, Chelsea, Revere, Everett, Malden, Melrose, Somerville, Medford, Cambridge, Newton, Waltham, Quincy and the area within the township limits of Winthrop, Winchester, Arlington, Belmont, Watertown, Needham, Dedham, Brookline and Milton.

The same report, however, goes on to recommend that conditions in the area are such as to warrant the removal of regulatory exemptions provided in section 203(b) (8) for vehicles operating within municipal zones. In this connection Mr. Naefe had previously pointed out that the commission's recent decision prescribing minimum rates for motor carriers in New England has brought a stability which would be upset if interstate carriers within the Boston area were now exempt from all regulation save that relating to qualifications and maximum hours of service of employees and safety of operation or standards of equipment. Thus he would invoke the commission's power to remove the exemption where such removal is deemed necessary "to carry out the policy of Congress. . . ."

Willard Begins Thirtieth Year as B. & O. President

President Daniel Willard of the Baltimore & Ohio began his 30th year as president of the road on January 14. Mr. Willard, now 78, has enjoyed a railroad career covering almost 60 years. When questioned if railroading is as interesting today as it ever was, he replied, "Yes, and no. Even having a job has always seemed to me to be one of life's greatest blessings," he said. "I have known what it was to lose my job and when I got one I was not so much concerned about what the hours were or what it paid as I was with its prospects for the future. Whatever I was doing was always interesting to me, and that goes for today, when the railroad situation is so complicated and difficult. Making the best of what you have is always good medicine."

"On the other hand," he continued, "I entered railroading during the period when physical expansion was at its highest. A whole continent was being developed and

the railroads were doing their part and growing rapidly. It was inspiring work. I enjoyed it immensely. I loved it. That particular phase of railroad development has passed. I do not mean that the railroads have by any means become static or that there will never again be a period as interesting as the one I have mentioned. Indeed, it is quite possible that the future of the railroads will be even more interesting. As far as I am concerned—I would always be looking for new things to do and new areas to explore."

Freight Car Loading

Carloading reports were so delayed this week that the Association of American Railroads was unable to announce the total for the week ending January 14 on Thursday, as had been anticipated.

As reported in last week's issue the loadings for the previous week ended January 7, totaled 530,849 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R. follows:

Revenue Freight Car Loadings			
For Week Ended Saturday, January 7			
Districts	1939	1938	1937
Eastern	113,682	114,240	157,793
Allegheny	101,129	98,112	146,699
Pocahontas	38,885	35,892	53,442
Southern	86,514	88,808	106,135
Northwestern	63,255	71,246	77,157
Central Western	86,028	94,312	103,455
Southwestern	41,356	49,958	55,365
Total Western Districts	190,639	215,516	235,977
Total All Roads.....	530,849	552,568	700,046
Commodities			
Grain and Grain Products	29,324	39,672	29,860
Live Stock	12,819	14,635	15,419
Coal	119,626	110,868	171,165
Coke	7,291	6,826	11,753
Forest Products	21,733	24,258	30,037
Ore	8,982	6,454	9,826
Merchandise L.C.L.	122,302	142,138	159,001
Miscellaneous	208,772	207,717	272,985
January 7	530,849	552,568	700,046
December 31	499,895	454,906	
December 24	574,462	457,821	
December 17	606,314	600,283	
December 10	619,340	619,266	

In Canada.—Car loadings for the first week of this year totaled 35,664, which was 4,618 above the previous week's total but 8,248 below total loadings for the first week a year ago, according to the report of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
Jan. 7, 1939	35,664	21,076
Dec. 31, 1938	31,046	16,904
Dec. 24, 1938	38,371	20,728
Jan. 8, 1938	43,912	20,112
Cumulative Totals for Canada:		
Jan. 7, 1939	35,664	21,076
Jan. 8, 1938	43,912	20,112
Jan. 9, 1937	45,005	26,316

International Shippers Probe Rates and Perishables

An exchange of views on the claims of the British railway companies for greater freedom in rate-making and on the transportation of perishable goods internationally in Europe were the most important items on the agenda of the Transport Users Committee of the International Chamber of Commerce, meeting recently in Paris, France. Shipper representatives from nine European companies present at the meeting held divergent views on the effects of the plan of the British railroads for freedom in rate-making. Some members held

the view that all means of transport should be granted complete freedom in rate-making while others contended that the existing rate structure of the railroads had become such an essential part of the economic structure of their several countries that any such "sudden reversal of policies" would be dangerous.

While it was admitted that considerable progress has been made in arranging for the international movement of perishable shipments in Europe by railroads, it was decided that several further improvements are desirable: (1) a reduction should be effected in the number of documents required from exporters in connection with the movement of their goods; (2) since perishables frequently lose weight by evaporation during transit the weight of the goods should be calculated with great accuracy in order to avoid disputes between the participating carriers and between the consignor and consignee; (3) ice carried for refrigeration purposes should be exempted from the usual transport charges, as has already been done by the Polish roads; (4) special cars used for the haulage of fruit should be routed as quickly as possible; (5) an agreement should be reached between the railroads of the countries participating in the movement to reduce transportation costs to a minimum and establish uniform rates, as for example, obtains in the present arrangements for the shipment of flowers and fruit from Italy to England.

Ask Reopening of Forwarding Case

On January 19, the Interstate Commerce Commission made public an order postponing the effective date of its order in the Freight Forwarding Investigation from February 17 to May 17.

Following up their recent petition for a postponement of the effective date of the Interstate Commerce Commission's order in the Freight Forwarding Investigation for six months beyond February 17, Western railroads this week asked the commission to reopen that proceeding for reconsideration and reargument. Meanwhile Eastern roads have joined in the request for the six-months postponement of the order's effective date, adopting in that connection the above-mentioned petition of Western respondents, which was noted in the *Railway Age* of January 14, page 127.

The new Western petition declares it to be "obvious that if the commission's findings and orders . . . are permitted to take effect as scheduled, respondents would be deprived of an opportunity to participate in the transportation of forwarding company traffic. That portion of the traffic now being handled by respondents would unquestionably be diverted to trucks and the present practice, exactly as now carried on by respondents, would continue unabated."

The Pennsylvania has filed a separate petition, asking for an "appropriate" postponement of the order's effective date.

Equipment Depreciation Rates

Equipment depreciation rates for six railroads, including the Union Pacific and the Minneapolis, St. Paul & Sault Ste.

Marie, are prescribed by the Interstate Commerce Commission in another series of sub-orders and modifications of previous sub-orders in No. 15,100, Depreciation Charges of Steam Railroad Companies. The composite percentages which are not prescribed rates range from 3.42 for the Soo Line to 22.89 for the Bowdon. The latter is also the Bowdon's prescribed rate for passenger-train cars, since the present sub-order, a modification of a previous one, covers only that class of equipment.

The Union Pacific's composite percentage of 3.96 is derived from prescribed rates as follows: Steam locomotives, 3.9 per cent; other locomotives, 7.19 per cent; freight-train cars, 3.81 per cent; passenger-train cars, 3.94 per cent; floating equipment, 4.9 per cent; work equipment, 5.09 per cent; miscellaneous equipment, 15.39 per cent. These rates cover also equipment leased from the Los Angeles & Salt Lake; the Oregon Short Line; the Oregon-Washington Railroad & Navigation; and the St. Joseph & Grand Island.

The Soo Line's prescribed rates are as follows: Steam locomotives, 3.05 per cent; freight-train cars, 3.08 per cent; rebuilt freight cars, 5.27 per cent; second-hand freight cars, 5.71 per cent; passenger-train cars, 2.8 per cent; work equipment, 3.58 per cent; miscellaneous equipment, 9.8 per cent.

S. A. L.'s "Silver Meteor" to Make First Run February 2

The "Silver Meteor," new seven-car all-coach streamliner to be operated between New York and Florida by the Seaboard Air Line, in conjunction with the Pennsylvania and Richmond, Fredericksburg & Potomac, will depart on its initial journey from Pennsylvania station, New York, at 3:30 p. m. on Thursday, February 2. Providing "year-round" service, the train's time card calls for approximately five journeys per month in each direction between New York and eastern Florida points and five between New York and western Florida. Thus, the train will arrive at and depart from New York every third day providing ten trips per month in either direction as far as the fork of the road at Wildwood, Fla. South of that point, five trips will be afforded monthly on the legs to Miami and St. Petersburg, respectively.

The Silver Meteor consists of seven new, stainless steel, streamlined cars, all built by the Edward G. Budd Manufacturing Company. A total of 280 revenue seats is provided in the coaches, and the cars include individual lounge rooms, a tavern section, an observation-lounge section, and a diner, providing a total of 120 non-revenue seats. Among the features of its service will be radio entertainment, a supply of popular magazines in the lounge car, a registered nurse, steward service and low cost meals, with luncheons and dinners at 60 and 75 cents. In addition, the tavern car will supply sandwiches, beverages and liquors. All seats will be reserved in advance.

The train will be hauled by Pennsylvania electric locomotives between New York and Washington and by new Diesel-electric

power of the Seaboard south of the latter point.

Schedules call for departure from New York as P. R. R. train No. 155 at 3:30 p. m., with arrival at Washington at 7:30 p. m. As R. F. & P. No. 43, the Silver Meteor leaves the Capitol city at 7:40 p. m. and as S. A. L. train No. 43 pulls out of Richmond, Va., at 10:05 p. m. The next afternoon, at 12:40 p. m., it will arrive at Wildwood, and at 6:00 p. m. roll into journey's end at Miami, after an elapsed time from New York of 26 hr., 30 min. On the northward journey, the new train will leave Miami at 9:05 a. m., Wildwood at 2:20 p. m., Richmond at 5:20 a. m. and Washington at 8:00 a. m., and arrive at New York at 12:05 p. m., a travel-time of 27 hr.

The time-table for the alternating St. Petersburg runs is identical in both directions as far as Wildwood, while the southbound train arrives at St. Petersburg at 4:15 p. m., and the northbound departs therefrom at 11:00 a. m.

Before the scheduled departure of the train from New York on February 2, it will be dedicated at the World's Fair station of the Long Island and Pennsylvania by a so-called "girl of tomorrow", before representatives of transportation, industry and government, after which it will proceed through the East River tunnels to Pennsylvania station for its first load of passengers Florida-bound.

Minimum Rates for Trucks in California

A tariff naming minimum rates, rules and regulations for the transportation of property between points in California by radial highway common carriers and highway contract carriers will become effective on February 15 as the result of an order of the Railroad Commission of California dated December 27, Decision No. 31606. The new rates are a further step in promulgating orders looking toward the ultimate stabilization of the transportation industry and equalization of competitive conditions between express, rail, truck and vessel carriers and freight forwarders.

As early as 1932, the state realized that the condition of its transportation system was detrimental to public interest, that rate wars were bankrupting both truck and rail carriers and that the ability of the established transportation agencies to afford adequate service was being impaired. Investigation showed that California was suffering from an over-abundance of transportation. In addition to the many thousands of proprietary operators and the common carrier subject to the Public Utilities Act, more than 8,000 radial highway common, highway contract and city carriers hold permits to perform for-hire transportation. These permitted carriers operate at least 30,000 vehicular units. Equipment is seldom used to capacity and load factors of 50 per cent or less are the rule. Relatively few carriers operate at a profit, and approximately 500 discontinue operations each month. This, however, does not reduce the number of carriers, for while these drop out approximately the same number regularly enters the field.

The result of this situation is that few of the carriers are able to make full and economical use of their equipment and hence many experience abnormally high unit costs.

In setting up rates to equalize competitive conditions between the several forms of for-hire transport, the Commission took the position that, in addition to the costs of performing the service, value of the facility reasonably necessary to perform the service and value of the commodity, consideration must be given to other factors ordinarily entering into rate making, including value of the service, market competition, what the traffic will bear, and the manner in and the extent to which each of these elements is to be applied in developing minimum rates. Having discussed the principles entering into rate reasonableness and having outlined a basis for developing minimum rates for each form of for-hire carrier, it concluded that the logical basis for equalizing competitive conditions between the different forms of transportation is to determine which is the *rate-making type of carrier in each field of transportation*, to fix minimum rates for carriers of that type, and then to permit competitive forms of transport to meet on equal terms the "going" rates set by such rate-making type of carrier.

The new rates are set forth in the form of mileage scales and rates are provided for ten classes. Rates for the first four classes are graduated under five weight brackets. Rates in the 2,000 lb. bracket are graded into the "any quantity" rates at 100 miles. Only one bracket of rates is provided for the last six classes. It is intended that in the 20,000 lb. weight bracket rates for these six classes will be subject only to carload ratings and carload minimum weights contained in the Western Classification and Exception Sheet. Otherwise, rates in each weight bracket are intended to be subject to any quantity or less-carload ratings and to carload ratings and carload minimum weights. The proposed less-truckload rates are, in general, lower than either the rates established for transportation within southern California by Decision No. 29480, as amended, in Case No. 4088, Part "M", and Case No. 4145, Part "B" or the rates established for transportation within central and northern California, by Decision No. 30370, as amended, in Case No. 4088, Parts "U" and "V", and Case No. 4145, Parts "F" and "G".

Belsterling Sees New Rate-Making Era

Declaring that we are gradually drifting back "to the place where we started—the fixation of rates that will move traffic", Charles S. Belsterling, vice-president, United States Steel Corporation, told members and guests of the Traffic Club of Syracuse, N. Y., on January 18, that "we are on the threshold of another age in the history of federal rate regulation," and emphasized the necessity of "loosening" the freight rate structure "into greater flexibility to meet the changed conditions of transportation."

In getting into his subject the speaker reviewed the major turns and twists in the onward sweep of government regula-

tion of the carriers from the introductory or "probation" age, through the "doldrums period" of futility and inactivity, on to the present state of unequal and antiquated restraint. Referring to revision during the past year of the Canadian rate structure to allow for "agreed charges" and the recent plea of the British roads for repeal of existing statutory regulation of merchandise charges, Mr. Belsterling was of the opinion that our own railroads "are facing the task of modernizing the freight rate structure, long grown antiquated and unnecessarily rigid." Hence he called for a return to first principles—"the fixation of rates that will move the traffic. We enter 'the last scene of all that ends this strange eventful history' with full confidence that, in the final analysis, equal justice will be accorded to the rate problems of the rail carriers."

U. S. Supreme Court Decides Against the Alton

The United States Supreme Court, in an opinion by Justice Butler, on January 16, in the case of the Alton Railroad Company v. the Illinois Commerce Commission, affirmed a judgment of the Supreme Court of Illinois which had sustained an order of the Illinois Commerce Commission requiring the Alton to continue maintenance and operation of a switch track in Chicago used to serve shippers. The carrier had petitioned the Illinois Commerce Commission for a ruling permitting it to discontinue services over the switch track which was built for private industrial purposes served. The commission declined to grant the permission sought by the carrier.

In the court case the carrier contended that the requirement of the Illinois commission deprived it of its property without due process of law. Mr. Justice Butler held that the ownership by private industries of land on which the track was constructed did not render the order unreasonable as requiring expenditures by the railroad for improvements on the property of third persons. A state, he pointed out, may, under the due process clause, empower a common carrier by railroad to condemn a right of way for a spur leading to a private industry, to be operated under obligations of public service, or it may compel a railroad to extend a siding to an adjacent industry so as to provide additional track-ages for public use.

Transport Conference to Hold Third Meeting

The third meeting of the National Transportation Conference, organized last September by the Chamber of Commerce of the United States to develop a business man's program to improve the railroad situation, will convene in Washington, D. C., on January 23 and 24. Rounding out its earlier recommendations, the conference will seek to reach conclusions on railroad rates, federal financial aid and a number of other major problems.

Among other questions the conference will pass judgment upon the desirability of creating a new transportation authority and will decide whether or not it desires to take

a position on the proposal of John A. Hastings to postalize rates. Findings of the conference will be submitted to the House and Senate interstate commerce committees for their consideration in connecting with pending railroad legislation.

The Advisory committee appointed at the November meeting designated two committees, the railroad rate provisions committee and the federal financial aid committee to meet and propose subjects for the conference to consider at its next meeting. The two committees have submitted the following specific questions for discussion at the meeting:

RAILROAD RATE PROVISIONS

Should Section 15a be repealed and for it be substituted a rate-making rule, applicable to all modes of transportation under jurisdiction of the Interstate Commerce Commission, to the effect that it shall be the duty of the commission to exercise its authority over rates, so far as is consistent with its duty to protect the public against the exaction of unreasonable and unjustly discriminatory rates, in such way as to permit the establishment by each such mode of transportation of rates which, as a whole, will be adequate, under honest, efficient and economical management: (a) to sustain a national transportation system sufficient at all times to meet the needs of commerce; (b) to establish and maintain credit so that capital essential to provide the needed facilities and service may be attracted to the transportation industry; and (c) to afford fair treatment to those having their money invested in the property held for and used in the service of transportation; with the understanding that the commission should as at present be allowed reasonable latitude to modify or adjust any particular rates or groups of rates which it may find to be unreasonable or unjustly discriminatory and that this proposal would not limit the power of the commission to prescribe maximum and minimum rates or to suspend new rates?

Should the commission be authorized to prescribe joint routes of rail carriers without preserving to each carrier existing rights to secure for itself the longest available haul?

Should existing provisions of law authorizing certain government officers to make complaints regarding transportation rates and to appear before the commission in support thereof be repealed?

Should Congress authorize establishment of trainload rates subject to approval of the commission?

Should the Hoch-Smith Resolution be repealed and should congressional rate making be avoided as unsound in principle and contrary to the public interest?

Should the commission have authority to prescribe minimum as well as maximum joint rail-water rates?

FEDERAL FINANCIAL AID

To facilitate coordination and consolidations, should dismissal and displacement allowances under the "Washington Agreement" between railroads and employees be credited against payments due as federal income taxes?

As an alternative to complete relief from

undistributed profits tax, should net expenditures of railroad for debt reduction, additions and betterments be made an authorized deduction from income subject to that tax?

Should net expenditures of railroads for debt reduction, additions and betterments be made for a limited period, an authorized deduction from income subject to federal income tax?

Should paper profits to railroads in connection with debt retirement be made, for a limited period, an authorized deduction from income subject to federal income tax?

Should railroads emerging from bankruptcy or entering into consolidations be authorized to make new declarations of value of their capital stock for tax purposes without completion of the usual three-year period?

GENERAL POLICY

Should Congress adopt a strong declaration of purpose to preserve and promote private ownership and operation of railroads?

Should any proposal for putting railroad rates on a basis similar to postal rates be opposed as involving, among other objections, government ownership of railroads and ultimately necessitating a monopoly of all types of transportation?

Should there be a transportation authority, or an administrator working in connection with the Interstate Commerce Commission, to

(a) Plan and promote consolidations, coordinations and other opportunities for economies in railroad service;

(b) Investigate relative economy and fitness of rail, motor and water carriers with a view to promoting joint and cooperative use and abating wasteful and destructive competition, and recommend any desirable legislation to these ends; and

(c) Report the extent of any direct or indirect government financial support of these three forms of transportation with recommendations as to any desirable changes in government policy in regard thereto?

Should a certificate of convenience and necessity from the federal regulatory body be required for any addition to transportation facilities, including any new facilities undertaken by the government?

"In" for Local Interests Urged

(Continued from page 164)

of its affairs. The time may come when it can be made a part of some larger railroad system, but for the present it would seem that nobody can do as much for it as the folks at home who have the greatest stake in its welfare."

Such representation, he went on, should include the communities which the road serves and the men it employs, and might even be carried to the State of Vermont. Of employees specifically, he averred that, if the employees of the Rutland "can be shown that they are not being imposed upon, and can be given a management in which they have confidence, I have no doubt

that they will be willing to do their bit, if for no other reason than enlightened self interest. They will take into consideration, also, the probability that their real wages, considering living conditions in Vermont, will not compare unfavorably with those of many railroad employees in other parts of the country, even if they do suffer a temporary reduction."

Against possible loss of revenue to the state from temporary tax reductions it would be wise to balance the increased expenses which the state will incur if the Rutland should be unable to survive, he declared, citing the loss of employment on the road and in industries along the line, the probable increase in cost of fuel and similar supplies, and increased expenditures for the improvement or construction of highways.

Recalling the beauties of a trip over the Rutland, Mr. Eastman suggested that, with the help of the New York Central and the R. F. C., the Rutland put two modern streamlined trains in day-time service on its New York-Montreal route, finding it "difficult to believe that they would not attract traffic." In conclusion he said: "It is, perhaps, not too much to hope that this small railroad can in a way become a proving ground for the demonstration of some new ideas in railroad transportation or, in other words, that the Green Mountain boys will be able again to blaze new trails."

Congress Receives More Transport Bills

As the Congress moves into its third week more bills affecting transportation continue to fall into the legislative hopper. Representative Van Zandt, Republican of Pennsylvania has introduced two bills which would amend the Railroad Retirement Act. One, H. R. 2298, would compel retirement at 65 years of age and the other, H. R. 2313, would amend the Act so as to provide retirement after 30 years of service and attaining the age of 60 years with full annuities. Delegate Dimond from the territory of Alaska has offered two bills, H. R. 2178 and H. R. 2642 which would amend the act for the retirement of employees of the Alaska Railroad. In the Senate, Senator Reynolds, Democrat of North Carolina, would amend paragraph three of section two of the Railroad Retirement Act of 1937 to read as follows: "Individuals, without regard to age, who on or after the enactment date are totally and permanently disabled for regular employment for hire and shall have completed 10 years of service, but the annuity of such individuals shall not in any case be less than \$50 per month."

Several highway bills have been received by the Congress during the past week. Representative Kerr, Democrat of North Carolina, has introduced H. R. 2380, a bill to provide that 50 per cent of federal highway-aid funds shall be applied to secondary and feeder roads, including farm-to-market roads and rural free delivery mail routes. Representative Dirksen, Republican of Illinois, has offered a bill, H. R. 15, which would provide for the adoption of a uniform system of motor vehicle traffic regulations by states receiving aid

under the provisions of the Federal Highway Act. A bill, H. R. 2299, to promote the safety of operation of motor vehicles on the highways of the United States has been introduced by Representative Rich, Republican of Pennsylvania. In the Senate, Senator McKellar, Democrat of Tennessee, has introduced a bill, S. 679, to provide for the formulation of a plan of construction of certain through highways in the United States.

Representative Bland, Democrat of Virginia, has introduced H. R. 2183, a bill to authorize the Board of Engineers for Rivers and Harbors to prepare estimates and plans for improvement of certain river and harbor projects. Representative Angell, Republican of Oregon, has introduced a bill, H. R. 2405, which would authorize the Secretary of War to extend the services and operations of the Inland Waterways Corporation to the Columbia River. This is a companion bill to one offered by Senator McNary, Republican of Oregon, which was noted in last week's *Railway Age*.

A bill, H. R. 1812, introduced by Representative Burdick, Republican of North Dakota, would limit the annual salaries of employees of corporations and others who apply to the government for credit or other assistance. Senator Neely, Democrat of West Virginia, has offered in the Senate, S. 286, a bill to impose a tax of three cents a gallon on fuel oil sold for the generation of heat or power, but not for use as fuel for an internal combustion engine. A similar bill has been offered by Representative Kee, Democrat of West Virginia and carries the number H. R. 2196.

Also, Mr. Angell has introduced H. R. 2395, which would amend paragraph 14 of subsection (a) of section 203 of the Motor Carrier Act of 1935. Another bill, H. R. 1976, offered by Representative Ramspeck, Democrat of Georgia, would provide for the judicial review of "negative" orders of the Interstate Commerce Commission.

Representative Tinkham, Republican of Massachusetts, has introduced by request H. R. 2667, a bill to provide for the construction of an inter-ocean ship canal of lock design in the states of Vera Cruz and Oajaca, Mexico.

A bill, H. R. 2188, providing for, among other things, the apportionment of the cost of alteration of or changes to bridges over navigable waterways between the government and the owners of the bridges, as determined by the Secretary of War, has been introduced by Representative Hobbs, Democrat of Alabama. The bill provides that the government shall bear that part of the cost attributable to the necessities of navigation and that the owner shall bear that part of the cost attributable to the requirements of traffic by railroad or highway, or both, including any expenditure for increased carrying capacity of the bridge, and including such proportion of the actual capital cost of the old bridge or of such part of the old bridge as may be altered or changed or rebuilt, as the used service life of the whole or a part, as the case may be, bears to the total estimated service life of the whole or such part.

Senator Hill, Democrat of Alabama, has

introduced an addition to the Hoch-Smith rate revision resolution. The new resolution, Senate Joint Resolution 27, would add another paragraph, immediately following the second paragraph, reading as follows:

"In view of the changing transportation conditions and the location and relocation of factories, assembly plants, and other industries, the commission is directed to make an investigation of the level of rates throughout the various sections and between the sections of the country maintained by common carriers subject to the interstate commerce act for the transportation of property, the causes of differences in the rate levels of different sections and as between different sections or rate territories and to enter orders requiring that such differences be removed when, after such investigation they are found to be unlawful under any provision of the said act."

Representative Boland, Democrat of Pennsylvania, has offered in the House, House Resolution 39, requesting the commission and the Reconstruction Finance Corporation to furnish the House such information as they may have available relating to the present condition of the physical equipment of the railroads and the possibility of improvement in such equipment so that railroad transportation may be made as economical and efficient as modern methods can make them. The resolution also calls for such information as these agencies have available relating to the financial condition of the railroads and particularly the amount, terms, and possibility of repayment of their indebtedness to the United States and its agencies and such recommendations as the commission and the RFC may desire to make relating to changes in the policy of government loans to railroads in order that their physical equipment may be rehabilitated.

I.C.C. Wants Order on "Postalization"

(Continued from page 164)

Although the committee of railroad traffic managers will not report on the plan until January 24, there is considerable discussion going on in railroad circles regarding the merits and demerits of the plan.

Briefly, Mr. Hastings' plan contemplates:

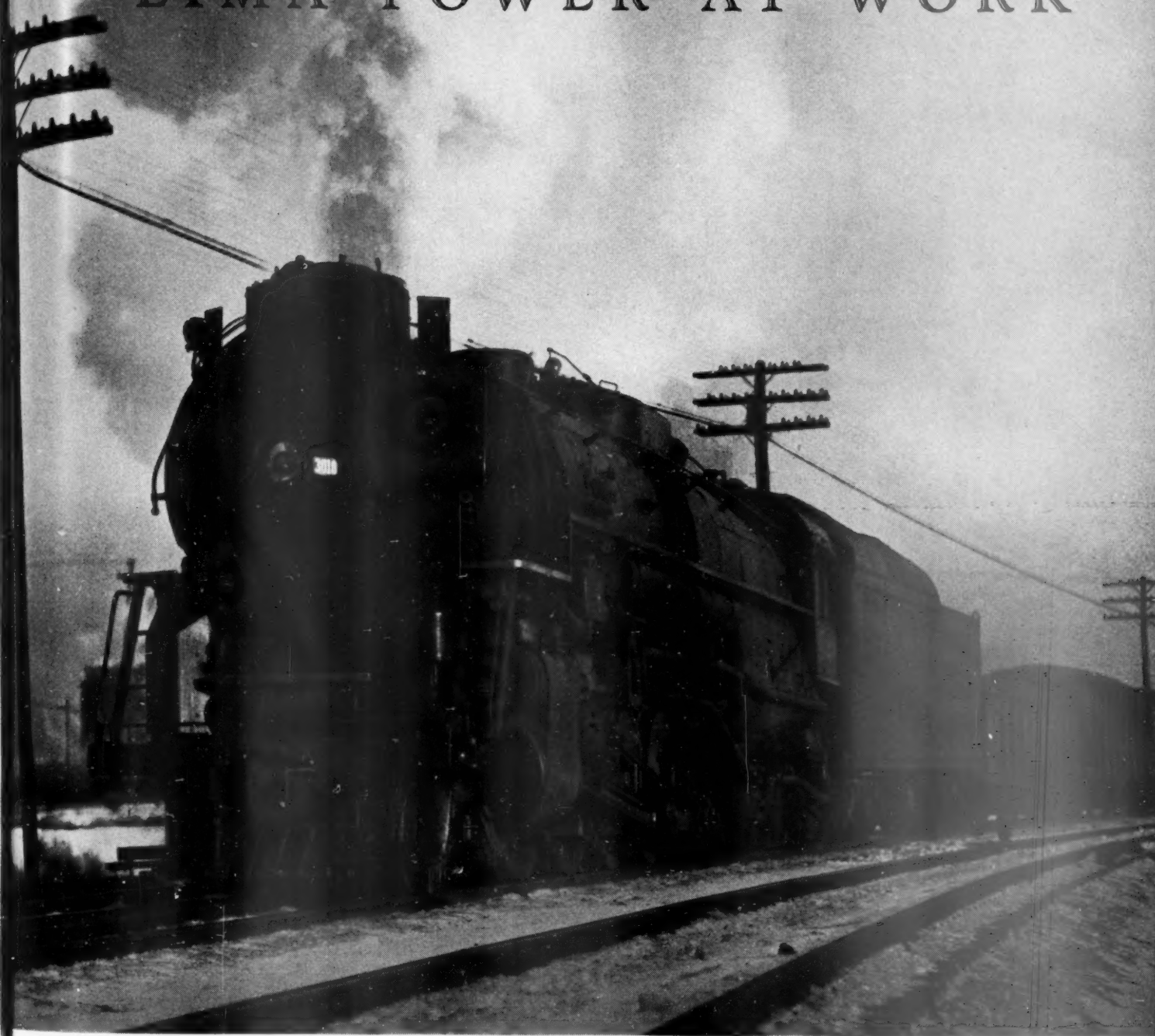
1. Dividing the country into nine "postalized fare regions," with a flat charge for passenger travel within any one region, regardless of distance as follows:

- (a). In coaches, \$1.00
- (b). In parlor cars, \$3.00
- (c). In local sleeper cars, \$5.00
- (d). On regular reserved trains, \$10.00
- (e). On de luxe trains, \$15.00

2. For inter-regional journeys, fares would be the sum of the fares in each region traversed. Thus, from New York to Chicago, both being in the same region, the coach fare would be \$1.00; from New York to San Francisco, crossing four regions, the coach fare would be \$4.00.

Continued on next left-hand page

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3. In addition to guaranteeing the railroads against loss of passenger revenue for an experimental period of three years, the government would protect them against loss on account of additional expense in handling added traffic, with a guarantee of a minimum revenue of 20 cents a mile on passenger cars.

Senator Hastings' plan contemplates similar treatment of freight charges eventually, although it is not contemplated that postalized freight rates should be made mandatory at this time.

Railroad men who have studied the plan oppose its adoption. They point out that distance cannot be entirely disregarded as a factor in the cost, the value, and the rate of passenger transportation service. To fix one rate for all distances ranging from one mile to more than 1,000 miles, it is pointed out, would discriminate against certain communities and favor others, and would burden short-haul passengers to help long-haul passengers.

Students of the plan also point out that even if the railroad fare were free, the bulk of the people would still remain at home, at work, or in school or about their household duties, because of the fact that expenses other than railroad fare are involved in traveling. It is also contended that this same principle would apply to an even greater degree in freight transportation. Traffic men feel that if all freight transportation were free, there would not necessarily be any very large increase in the volume of freight moved. In most cases, they point out, transportation costs are not large enough to affect materially the price at which goods and services are sold to the consumer; and, unless there were a material decrease in consumer prices, there would be no great increase in consumption of goods and services as a result of lowered transportation charges.

Another argument advanced in railroad circles is that the assumption that the postalized plan would greatly reduce the unit cost of handling passengers by filling every seat on passenger trains is not borne out by experience. It is pointed out that it is impossible to predict how many people will be traveling at a specific time so that it would be impossible to tell just how many trains to run at a given time to accommodate the traveling public.

Also, it is observed that should the plan prove unsuccessful, and should government support be discontinued at the end of the proposed three year guarantee period, every railroad in the country would then be faced with the task of restoring railroad fares to a remunerative level under conditions, which, as a practical matter, would make it impossible.

It is also contended that the analogy between postalized fares and the first class mail system is erroneous in that the two cases are in no way parallel. This view holds that approximately five-sixths of the expense of handling mail is in its collection at the point of origin and its delivery at destination while only about one-sixth is for rail transportation between origin and destination. Even extreme variations in distance, therefore, have only a negligible effect upon the total cost of handling

a letter from the mail box to point of delivery, it is contended.

On the other hand, passengers do not have to be collected and delivered. They load and unload themselves, and require a minimum of terminal handling at both ends of the line. The cost of carrying them varies in rather close relation to the length of the journey, and the long haul rate proposed in the postalized plan is entirely inadequate to meet these costs, no matter how many additional passengers it might bring to the railroads, is the belief of informed railroad men.

Close upon the publication of Chairman Caskie's letter came a statement by Mr. Hastings endorsing the stand of the commission and urging a sufficient appropriation to enable the commission to complete a comprehensive study of his plan.

Construction

BALTIMORE & OHIO.—A contract has been given to the Minton Construction Company, Cleveland, Ohio, for the construction of a warehouse at Cleveland, to cost about \$65,000.

MANISTEE & NORTHEASTERN.—A contract has been awarded the Wisconsin Bridge & Iron Company, Milwaukee, Wis., for the construction of a counter-balanced through girder draw span across the Manistee river, providing a 100-ft. clear channel, which will replace the structure now in use. The new bridge, which will cost \$270,000, will be approximately 312 ft. long, including approaches.

NEW YORK CENTRAL.—A contract has been given to Hoffman & Elias, Inc., New York, for electric wiring and lighting facilities, telephone conduits and appurtenances in Riverside Park, between West 92nd and West 112th streets, New York. Frank F. Royal, Inc., New York, has been given a contract for the construction of remote controlled sub-station No. 13 at East 126th street, New York.

SOUTHERN.—J. M. Hickman, Nashville, Tenn., was the low bidder, with a bid of \$94,918 for the construction of a subway under two tracks of the Southern at Barden, Tenn. The structure will have a ballast deck with a concrete floor and foot walks with wrought iron hand rails. The surface of the floor will be sealed with 3-ply waterproofing membrane covered with asphalt plank. The floor is supported by eight (four under each track) 36 $\frac{3}{4}$ -in. by 16 $\frac{5}{8}$ -in. 300-lb. WF beams resting on reinforced concrete abutments with wing walls. Sidewalks on each side of the highway will be provided through the abutments, and a 40-ft. clear roadway with a minimum overhead clearance of 14 ft. 10 in. will also be provided.

VIRGINIAN.—This company has asked the Interstate Commerce Commission for authority to construct 11 miles of line connecting with the Morri branch near Oceana, W. Va., all in Wyoming County, W. Va.

Supply Trade

J. B. Peddle, St. Louis, Mo., has been placed in charge of sales of the railway division of the **Morton Manufacturing Company**, Chicago, for the southwestern district.

Louis J. Galbreath, head of the Product Development Department of **Revere Copper and Brass, Inc.**, has been appointed technical adviser for the New York district sales division, with headquarters at 75 E. 45th street, New York City.

A. J. Manson, manager of the transportation sales department of the **Westinghouse Electric & Manufacturing Co.**, has been elected a member of the board of directors of the **Electric Railway Equipment Securities Corporation**.

James H. Critchett, who has been in charge of research work, and **Francis B. Morgan**, who has been works manager of the **Electro Metallurgical Company**, a unit of **Union Carbide and Carbon Corporation**, New York, have been elected vice-presidents of the **Electro Metallurgical Company**.

The Hydro Transmission Corporation has been organized, with headquarters at Hamilton, Ohio, and officers as follows: **Heinrich Schneider**, president; **J. E. Peterson**, vice president and treasurer; **Adolph Schneider**, vice president; **John B. Hollister**, secretary. The company will handle engineering sales of an hydraulic transmission unit for Diesel switching locomotives and Diesel rail cars. The device will be manufactured under contract by the **General Machinery Corporation**, Hamilton, Ohio.

Daniel L. O'Brien, formerly with the **American Hoist & Derrick Co.**, St. Paul, Minn., has entered the **Howard S. Johnson Supply Company**, First National Bank building, St. Paul, as a partner with **Howard S. Johnson**, also formerly with the **American Hoist & Derrick Co.** This company now represents the **Ewald Iron Company**, Louisville, Ky., the **Railway Appliances Division** of the **American Fork & Hoe Co.**, Cleveland, Ohio, the **Centaur Corporation**, Greenwich, Ohio, the **Mall Tool Company**, Chicago, the **Apex Tool & Cutter Co.**, Shelton, Conn., the **Du-Wel Steel Products Company**, Chicago, and the **Seamless Tube Division** of the **Pittsburgh Steel Company**.

OBITUARY

Forest M. Titus, formerly for about 30 years representative for the **American Locomotive Company**, in China, died on January 15, at his home at Paterson, N. J., after a three weeks' illness. He was born at Conneaut, Ohio, in March, 1868. After leaving the employ of the **American Locomotive Company** in 1935, Mr. Titus was identified with the **Nanking-Shanghai Railway** and in this capacity was associated with the **Chinese War Ministry**. He returned to the United States last August.

Continued on next left-hand page

A NEW REGULATION

to enforce SMOOTH RIDING

and Traveling Post Office Workers' Association.

Post Office Will Require One Car Before Mail Car

The Railway Mail Service has drafted a new postal regulation which requires that henceforth "when practicable, one or more cars shall be operated between the engine and the railway postoffice car." Superintendent Stephen A. Cisler of the Railway Mail Service, explained that the purpose of the new regulation was to insure smoother riding. Sudden jerks, he said, sometimes make clerks sorting letters throw them into the wrong receptacle.

Reprinted from Railway Age, October 22, 1938

The Locomotive Booster and E-2 Buffer will avoid starting shocks and insure smooth riding that cannot be obtained by regulations or mere change of train consist. The Booster even allows more tonnage and is a friendly ally of everyone on the train.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTREAL

Equipment and Supplies

Frisco Budget

A petition to spend \$1,311,700 for additions and improvements on the St. Louis-San Francisco, has been approved by the district court. Of this amount, \$998,103 will be used for roadway improvements and \$313,617 for mechanical improvements.

LOCOMOTIVES

THE SOUTHERN PACIFIC is inquiring for 40 locomotives, including 28 of the 4-8-8-2 type and 12 of the 2-8-8-4 type.

FREIGHT CARS

JOHN MORRELL & COMPANY, Ottumwa, Iowa, is inquiring for 100 refrigerator cars.

THE UNION PACIFIC is inquiring for 1,000 or 2,000 steel-sheathed, wood-lined box cars of 50 tons' capacity.

THE UNITED STATES NAVY DEPARTMENT, Bureau of Supplies and Accounts, has ordered 3 flat cars of 36-in. gage and 60-tons' capacity from the Haffner-Thrawl Car Co.

PASSENGER CARS

THE PENNSYLVANIA is inquiring for 5 dining cars.

THE PENNSYLVANIA will recondition and streamline 100 of its passenger cars at its Altoona, Pa., shops.

THE CANADIAN NATIONAL is continuing its program of modernization and improvement of passenger equipment which has been carried on during the past few years; work will be started immediately to air-condition 76 additional cars in shops of the company in Canada, as follows: 20 coaches at Moncton, N. B.; 8 parlor cars, 2 compartment-observation-buffet cars, 3 diners at the Point St. Charles, Que., shops; 15 coaches at London, Ont.; and 28 sleeping cars at Winnipeg, Man. All principal trains of the National System are now completely air-conditioned, and the present program will enable the use of air-conditioned equipment on a number of trains of lesser importance.

IRON AND STEEL

THE SOUTHERN PACIFIC is inquiring for 25,000 tons of rails.

THE ST. LOUIS-SAN FRANCISCO has ordered 12,500 tons of 112-lb. rails from the Tennessee Coal, Iron & Railroad Company.

THE NEW YORK, NEW HAVEN & HARTFORD has placed orders for 4,500 tons of 131-lb. rail with the Bethlehem Steel Company and for 4,500 tons of 131-lb. rail with the Carnegie-Illinois Steel Corporation. The federal court recently approved the purchase by this road of 15,000 tons of rail and track materials. The remaining 6,000

tons will be of 112-lb. rail and will probably be let this coming summer.

THE SEABOARD AIR LINE has purchased approximately 13,000 tons of 100-lb. rail. The orders included about 8,000 tons to the Tennessee Coal, Iron & Railroad Company, and about 5,200 tons to the Bethlehem Steel Company; substantial purchases of track accessories, such as tieplates, etc., to be used in the laying of the rail, are included in this company's 1939 rail program.

SIGNALING

SOUTHERN.—Sealed proposals will be received by this road at Washington, D. C., until 2:00 p. m., February 6, for furnishing the necessary materials for the installation of a flashing light crossing signal at Delaplane, Va. Further information may be obtained from L. H. Skinner, general purchasing agent, Washington.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Sealed proposals will be received at the office of the assistant chief engineer of this road, Room 898, Union station, Chicago, until 10:00 a. m. (c.s.t.) January 31, for the furnishing of signals and accessory material to be used in connection with highway grade crossing protection at four crossings in the State of Wisconsin. Proposals, specifications and plans will be furnished by the superintendent of telegraph and signals, Union depot, Milwaukee, on request.

CENTRAL VERMONT.—Sealed proposals will be received at the office of the purchasing agent of this road at St. Albans, Vt., until 12 o'clock noon, (c.s.t.) February 7, for furnishing the necessary materials for four railroad grade crossing protective devices (commonly called flashing or protecting signals) to be installed under the federal grade crossing program in the State of Vermont. Further information may be obtained from H. M. Dewart, purchasing agent of this road at St. Albans.

MOTOR VEHICLES

THE NEW ENGLAND TRANSPORTATION COMPANY.—The trustees of the New York, New Haven & Hartford have been authorized by the federal court to purchase 20 new buses for the New England Transportation Company, to cost \$150,000.

* * *



Seaboard Air Line "Breaks-In" Two Units of One of its New Diesel-Electrics on the Southern State Limited

Financial

BIRMINGHAM SOUTHERN.—*Acquisition.*—This road has applied to the Interstate Commerce Commission for authority to acquire for \$165,000 a 2.47-mile private track from its parent company—the Tennessee Coal, Iron & Railroad Company. The track involved extends in a southerly direction from a connection with the applicant's line at a point near Dolonah Junction, Ala.

BOSTON & MAINE.—*Extension of Notes and Pledge of Bonds.*—This company has asked the Interstate Commerce Commission for permission to extend to February 1, 1941 the maturity date of \$5,500,000 of 4½ per cent notes now held by banks and falling due February 1. The company has also asked permission to extend from a similar period the time within which it may pledge as collateral for loans \$4,795,000 of first mortgage five per cent bonds and \$3,875,000 of first mortgage six per cent bonds.

CANADIAN NATIONAL.—*New Bond Issue.*—A new \$50,000,000 bond issue of this road, guaranteed by the Dominion Government, was placed on the market on January 11 by the Bank of Canada. The new issue is in 7- and 20-year series and will be unconditionally guaranteed as to principal and interest, of which the first series carries 2¼ per cent and the latter, 3 per cent. The 7-year bonds will mature January 15, 1946 and will be non-callable. The 20-year bonds are due January 15, 1959 and will be subject to redemption at the company's option.

CENTRAL VERMONT.—*Abandonment.*—Examiner J. S. Prichard of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it refuse to authorize this company to abandon a line extending from South Barre, Vt., to Williamstown, 3.9 miles. The examiner would have the commission make this finding without prejudice to the right of the company to renew its application after the expiration of one year should it find that the line cannot be operated profitably under the modified service that he recommends.

CHICAGO, ROCK ISLAND & PACIFIC.—*Re-argument Granted.*—The Interstate Commerce Commission has granted the petition of the trustees of this company for a re-argument of its case involving the merger of this company with the Chicago, Rock Island & Gulf. As in the Louisiana & Arkansas case the trustees objected to the order of Division 4 which would require them to make provision for the employees who might be affected by the merger. Re-argument will be before the full commission at a date to be set later.

CENTRAL OF GEORGIA.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized the receiver to abandon a spur track extending from Florala, Ala., to Lakewood, Fla., 2.7 miles.

CHESAPEAKE & OHIO.—*Chesapeake Corp. Dissolution Voted.*—Stockholders of Chesapeake Corporation, intermediate holding

Continued on next left-hand page

NO. 80 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



Photo by Photoglob—Zurich—from "Bridges" by Charles S. Whitney—Published 1929 by William E. Rudge

FORTIFIED BRIDGE

ORTHEZ, FRANCE

Among the picturesque French war bridges of the middle ages is the bridge at Orthez over the Gave de Pau, which was constructed about 1260. The largest span, about 49 feet, is nearly twice the length of the others. A design of the bridge, drawn on lacework and dated 1589, shows the spandrel walls running straight up from the arches and extending some distance above the roadway, forming parapets to protect the defenders

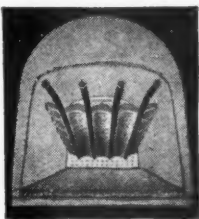
of the bridge.

* * *

A complete arch is *your* best protection against loss caused by partially consumed fuel. Only a complete arch can effect the economies that have been made possible by the design and development of the Security Sectional Arch from its introduction 28 years ago up to its present state of perfection.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER
REFRACTORIES CO.**
Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**
60 EAST 42nd STREET, NEW YORK, N. Y.
***Locomotive Combustion
Specialists***

company through which the Chesapeake & Ohio was controlled by the Van Sweringen brothers, formally voted dissolution of the corporation at a meeting held in Baltimore on January 16, and John Murphy, secretary of the corporation, was instructed to file a dissolution certificate with the state of Maryland. Some 73 per cent of the stockholders were represented at the meeting; Alleghany Corporation, now top holding corporation of the Van Sweringen set-up, owns approximately 71 per cent of the stock.

In a recent report to the Securities & Exchange Commission, the Chesapeake Corporation reported that its holdings of Chesapeake & Ohio stock had been reduced through its plan of stock distribution to 16.7 per cent of the total outstanding. As of December 31, 1937, Chesapeake Corporation held 30.81 per cent of the railroad's outstanding capital stock.

Stockholders of the corporation approved a plan of liquidation on November 28, 1938, but formal approval of dissolution was adjourned until the meeting of January 16. The plan was summarized in the *Railway Age* of December 3, 1938, page 827.

ERIE.—New Directors for Subsidiary.—Stockholders of the Northern of New Jersey, a leased line of the Erie, met in Englewood, N. J., on January 16 and elected an entirely new board of directors as follows: Winthrop Waite, East Orange, N. J.; Frank B. Cleland, White Plains, N. Y.; Arthur Frank, New York; Harry Weinstein, Plainfield, N. J.; W. C. Schmidt, New York; Cameron Blaikie, Jr., Englewood; and P. J. Gonnet, Union City, N. J. This board in turn elected a new officers' panel, with Mr. Waite as president, Mr. Cleland as comptroller; Mr. Weinstein as treasurer and Claude Gonnet as secretary. Frank and Edwin M. Slote, 285 Madison avenue, New York, will be the general counsel for the road. These officers succeed present officers of the road, all of whom are officers of the Erie. The same directors and officers have also been elected by the Nyack & Southern, a subsidiary.

The annual meeting of the Northern was originally scheduled for June, 1938, but was adjourned because of lack of a quorum. At the meeting on January 16, 6,431 of the 10,000 outstanding shares were represented.

The Erie has applied to the federal district court of Ohio for permission to discontinue its lease on the 26-mile Northern of New Jersey line between North Bergen, N. J., and Nyack, N. Y. A hearing on the application is scheduled for January 25 at Cleveland, Ohio. Further information on the road was published in the *Railway Age* of December 24, 1938, page 929.

GULF, MOBILE & OHIO.—R. L. E. A. Intervention Granted.—The Interstate Commerce Commission, Division 4, has authorized the Railway Labor Executives Association to intervene in the case of the application of this company for authority to acquire and operate the properties of the Mobile & Ohio. In its petition asking for intervention, the R. L. E. A. said that the operation of the M. & O. by another company would "be less efficient and de-

teriorate the services as now rendered by these separate railroad companies and would adversely affect various communities as well as employees who have investments and interests in homes, schools and society generally."

GULF, MOBILE & NORTHERN.—Abandonment of Operation.—Examiner R. R. Molster of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it find that the proposal of this company to abandon operation, under trackage rights, over the line of the Illinois Central between Bemis, Tenn., and Paducah, Ky., and terminal facilities of the Nashville, Chattanooga & St. Louis at Paducah is premature and should be dismissed.

The case arose when the Gulf, Mobile & Northern refused to permit the Illinois Central employees to operate its trains over the Illinois Central tracks between Bemis, Tenn. and Paducah, Ky. After an adverse federal court decision holding that the G. M. & N. should continue the operation with I. C. employees, the G. M. & N., on July 19, 1938, discontinued its operation and applied to the commission for authority to abandon the operation. The court decision has been appealed by the G. M. & N.

Examiner Molster asked the commission to dismiss the application as premature in the light of the fact that the G. M. & N. has an application pending with the commission to take over the Mobile & Ohio, thus eliminating the necessity for the operation over the I. C. tracks and also because of the pending court case which may force the G. M. & N. to pay damages for the breached contract.

KANSAS CITY SOUTHERN.—Merger.—The Interstate Commerce Commission, Division 4, has authorized the Missouri-Kansas-Texas, the M. K. T. of Texas, the Southern Pacific, the Texas & New Orleans, and the Kansas, Oklahoma & Gulf to intervene in the merger proceedings brought by this company and the Louisiana & Arkansas.

LOUISIANA & ARKANSAS.—Reargument Granted.—The Interstate Commerce Commission has granted the petition of this company for a reargument of its case involving the merger of this company and the Louisiana, Arkansas & Texas. The company objected to the conditions attached to the order in which Division 4 sought to force the company to make provision for employees who would be displaced by the merger. Reargument will be heard before the full commission at a date to be designated.

MISSOURI PACIFIC.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon the 2.36-mile segment of its Pike County (Ark.) branch between M. P. 454.65 and the end of the track at Pike City, Ark.

MINNEAPOLIS & ST. LOUIS.—Receiver's Certificates.—The Interstate Commerce Commission, Division 4, has modified its order of November 9, 1938, so as to limit the amount of this company's receiver's certificates that may be issued thereunder

to \$326,000. The original order authorized the issuance of \$550,000 of receiver's certificates, but in view of the fact that \$224,000 has been paid in cash to retire outstanding certificates the receiver will need to issue only \$326,000 to retire those now outstanding.

MISSOURI PACIFIC.—Allowance to the RFC.—The Reconstruction Finance Corporation has been allowed the sum of \$35,762 in payment of expenses incurred by it in connection with the investigation of the Terminal Shares contracts, in reorganization proceedings of this company, according to a decision of Division 4 of the Interstate Commerce Commission.

MISSOURI PACIFIC.—Exceptions to Examiner's Plan of Reorganization.—This company has filed a brief with the Interstate Commerce Commission citing 48 alleged "errors" in Examiner Jewell's proposed plan of reorganization for this company. The brief urges the commission to reject the examiner's plan and allow the MOP to effect a composition with its creditors. The brief went on to contend that the denial of an opportunity to submit to a vote of its creditors a proposal for composition would take from it a right given to it by Congress.

Plan of Protective Committee Filed.—At the same time the protective committee for the company's first and refunding mortgage bonds has filed with the commission exceptions to Examiner Jewell's plan of reorganization in which it offers a new plan of its own involving the wiping out of the present stockholder interests and slightly increasing the capitalization over that proposed by the examiner. The plan was prepared by a joint committee composed of representatives of the New Orleans, Texas & Mexico and the Missouri Pacific first and refunding mortgage bondholders' committee (the Stedman committee).

NEW YORK, NEW HAVEN & HARTFORD.—Control of Boston & Providence.—Judge C. C. Hincks of the U. S. District Court at New Haven, Conn., on January 17 denied a petition of the 103-year old Boston & Providence, a leased line of the Old Colony, itself a lessor road of the New York, New Haven & Hartford, which challenged the right of the New Haven to administer its affairs. The judge declared that the trustees placed in charge of the New Haven by the court under Section 77 received jurisdiction over the entire system, including leased lines, and that the lease of the Boston & Providence to the Old Colony directly related it in turn to the New Haven property. The Boston & Providence had contended that disaffirmance of its old lease to the Old Colony, and substitution of a new one therefor, removed it from the jurisdiction of the New Haven's trustees.

The Old Colony was permitted to disaffirm its original lease of the B. & P. by Judge Hincks in July, 1938. The New Haven filed a notice of disaffirmance and rejection of its unexpired lease of the Old Colony in June, 1936.

NEW YORK, NEW HAVEN & HARTFORD.—Hearing Set on Reorganization Plan.—The

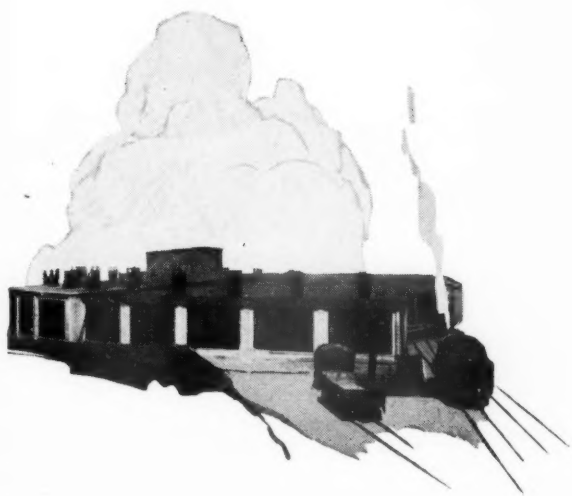
Why

Have Superheater Unit Maintenance In Roundhouses?

If it is a practice to replace failed units with repaired units as locomotives go through the shop, this method of unit maintenance will not stop roundhouse maintenance. There is always present that weak link in the chain.

Put your superheater equipment on a mileage basis. Renew—not a few units—but the entire set as a locomotive is shopped and watch your roundhouse maintenance disappear and your unit costs drop.

Remove that old set of units and have it REmanufactured the Elesco Way—it will give you service equal to new units . . . and you will save money too by cutting out roundhouse maintenance.



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Superheaters « Exhaust Steam Injectors « Feed Water Heaters « American Throttles « Pyrometers « Steam Dryers

Interstate Commerce Commission, Division 4, has set February 27 as the date for a public hearing on this company's amended plan of reorganization. The hearing will be held before Commissioner Mahaffie and Examiner Wilkinson.

PENNSYLVANIA.—Bonds of the Raritan River.—The Interstate Commerce Commission, Division 4, has authorized the Raritan River to extend from January 1, 1939 to January 1, 1959, the date of maturity of \$400,000 of first mortgage bonds, with interest at the rate of $4\frac{1}{4}$ per cent per annum.

PENNSYLVANIA.—Purchase of Stock of Leased Road.—This road has been authorized by the New Jersey Board of Public Utility Commissioners to transfer to its books 2,074 shares of stock of the United New Jersey Railroad & Canal Co., which it has acquired by purchase. By this transaction the Pennsylvania now owns 31,399 shares of the total of 212,318 shares outstanding of United New Jersey.

The road effected a 999-year lease on the latter company's property dated June 30, 1871, at which time it agreed to pay a rental sufficient to constitute a dividend of \$10 a share on its aggregate stock.

ST. LOUIS-SAN FRANCISCO.—Interest Payments.—The Federal district court has authorized the trustees of the Frisco to pay \$156,010 interest on 4 per cent and 5 per cent bonds of the Kansas City, Memphis & Birmingham, a subsidiary.

SAN DIEGO & ARIZONA.—Abandonment.—This road has applied to the Interstate Commerce Commission for authority to abandon a segment of its Lakeside branch, extending from a point near Santee, Calif., to Lakeside, 2.78 miles.

SEABOARD AIR LINE.—Equipment Trust Certificates.—The receivers have asked the Interstate Commerce Commission for authority to assume liability for \$640,000 of three per cent equipment trust certificates, maturing in 10 approximately equal annual installments beginning one year after January 1, 1939. The issue will be either sold to or guaranteed by the Reconstruction Finance Corporation.

SOUTHERN.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon the line and the Washington & Old Dominion to abandon the operation of the line extending from Purcellville, Va., to Bluemont, 7 miles.

Average Prices of Stocks and Bonds

	Jan. 17	Last week	Last year
Average price of 20 representative railway stocks...	31.93	32.72	31.82
Average price of 20 representative railway bonds...	61.43	61.53	64.36

Dividends Declared

Michigan Central.—\$25.00, semi-annually, payable January 31 to holders of record January 21.
North Carolina R. R. Co.—7 Per Cent Guaranteed Stock.—\$4.50, semi-annually, payable February 1 to holders of record January 21.

Saratoga & Schenectady.—\$3.00, semi-annually, payable January 16 to holders of record December 31.

Virginian.—Preferred, \$1.50, quarterly, payable February 1, to holders of record January 21; Common, \$1.00, payable January 26 to holders of record January 16.

Railway Officers

EXECUTIVE

J. P. Armstrong, assistant to the president of the International Railways of Central America, has been elected president, with headquarters at New York, to succeed **Charles F. Myers**, resigned.

F. J. Clark, general manager and general freight and passenger agent of the Mexico North-Western, with headquarters at Ciudad Juarez, Mex., has been elected vice-president in charge of operations, purchasing and traffic.

James R. Downes, whose appointment as vice-president—assistant to president of the Pennsylvania was noted in the *Railway Age* of January 14, was born in Tyrone, Pa., on October 23, 1883. After receiving a high school education, he became a clerk in 1901 in the office of the division superintendent of the Pennsylvania, in which capacity he served five years. He then



James R. Downes

served as clerk in the general manager's office and from 1918 to 1920 he was chief clerk to the regional director, United States Railroad Administration. Mr. Downes, in 1920, was appointed chief clerk to the vice-president, Central region, and continued in that position for three years, when he became superintendent of freight transportation. He was appointed chief of freight transportation in July, 1928, and in September, 1934, became assistant vice-president, which position he held until November of that year when he was elected vice-president in charge of operations and maintenance of the Association of American Railroads at Washington, D. C. On October 1, 1935, Mr. Downes returned to the service of the Pennsylvania as assistant to the president, which position he will retain, in addition to that of vice-president.

FINANCIAL, LEGAL AND ACCOUNTING

S. M. Nelson, secretary of the Tonopah & Tidewater, with headquarters at Los

Angeles, Cal., has also been appointed auditor and cashier.

OPERATING

F. J. Trudeau has been appointed trainmaster of the St. Lawrence, Ottawa and Adirondack divisions of the New York Central system, with headquarters at Watertown, N. Y. **J. E. Guilfoyle** has been appointed assistant trainmaster of the Buffalo division, at Buffalo, N. Y., and **J. R. Truden** has been appointed assistant trainmaster of the Electric, Harlem and Putnam divisions, at New York.

J. L. Sugden, superintendent sleeping, dining and parlor cars and news service of the Canadian Pacific, with headquarters at Calgary, Alta., has been transferred in the same capacity to Vancouver, B. C., to succeed **D. S. Fraser**, who retired on January 1 under the pension rules, after 26 years of continuous service. **W. A. Macfarlane**, assistant superintendent, sleeping, dining and parlor cars and news service, at Toronto, has been appointed superintendent, succeeding Mr. Sugden. **H. L. Anderson**, agent of the sleeping and dining car department at Toronto, has been appointed assistant superintendent at Toronto, succeeding Mr. Macfarlane.

A. L. Currie, assistant superintendent on the Canadian National at Levis, Que., has been appointed superintendent of the Cochrane division, with headquarters at Cochrane, Ont., succeeding **W. J. Atkinson**, who has retired after many years of service. **R. B. Corrigan**, assistant terminal superintendent at Montreal, Que., has been appointed assistant superintendent of the Levis division, at Levis, to succeed Mr. Currie. **James Francis Connolly**, general yardmaster in charge of the East End terminals, with headquarters at Longue Pointe, Que., has been appointed assistant superintendent of the Montreal terminals, succeeding Mr. Corrigan.

Mr. Currie began his railroad career as a clerk with the Quebec, Montreal & Southern at Sorel, Que., in 1902 and later held various positions in the operating department in Sorel and Montreal. In August, 1929, when the Q. M. & S. was taken over by the Canadian National, he was appointed assistant superintendent at Levis, the position he held until his recent appointment as superintendent at Cochrane.

A. M. Crawford, assistant superintendent of telegraph and signals of the Eastern region of the Pennsylvania, with headquarters at Philadelphia, Pa., has been promoted to superintendent of telegraph and signals of the Central region, with headquarters at Pittsburgh, Pa., succeeding **Edward B. Pry**, who retired on January 16.

Mr. Pry was born at Burgettstown, Pa., on January 12, 1872, and entered railway service on December 12, 1894, as a signal maintainer on the Pittsburgh, Cincinnati, Chicago & St. Louis (now part of the Pennsylvania) later being promoted to signal foreman. In February, 1903, he went with the Grand Rapids & Indiana (now part of the Pennsylvania) as a signal supervisor, and in January, 1905, he be-

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OPERATING ECONOMIES
effected by modern power
represent in some cases savings
of 20 to 40 per cent annually
on the investment.

MODERN POWER assures an increase in reserve power, better utilization, higher speeds, longer runs, increased availability, smaller consumption of fuel, reduction in the cost of maintenance, curtailment and possibly even elimination of double heading and helper mileage—in all,
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AMERICAN LOCOMOTIVE COMPANY
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came signal inspector on the Pennsylvania, Lines West of Pittsburgh, and in March, 1920, he was promoted to superintendent of telegraph and signals of the Southwestern region, with headquarters at St. Louis, Mo. Mr. Pry was transferred to the Central region, with headquarters at Pittsburgh in June, 1925.

Anthony F. Burke, trainmaster of the Buffalo Creek, with headquarters at Buffalo, N. Y., has been promoted to superin-



Anthony F. Burke

tendent, succeeding **Dennis Flaherty**, general superintendent, who retired on January 1.

Mr. Burke entered railway service in 1892 in the car department of the Delaware, Lackawanna & Western, and two years later he went with the Lehigh Valley in the same department, later being promoted to chief joint car inspector and serving in that capacity on the Lehigh Valley, the New York, Chicago & St. Louis (Nickel Plate), and the Erie from 1896 to 1899. On September 19, 1899, he went with the Buffalo Creek as chief car inspector and in 1903, was promoted to assistant yardmaster. In 1920, he was advanced to general yardmaster and a year later he was promoted to trainmaster.

Mr. Flaherty was born at Chenango



Dennis Flaherty

Bridge, N. Y., on February 29, 1864 and entered railway service on February 1, 1879 as a telegraph operator on the Dela-

ware, Lackawanna & Western at Binghamton, N. Y. On July 1, 1892, he went with the Lehigh Valley as a dispatcher at Buffalo, N. Y., and twelve years later he was appointed assistant yardmaster. On October 1, 1908, he was promoted to general yardmaster and on January 1, 1913, he was advanced to trainmaster. Mr. Flaherty was appointed general superintendent of the Buffalo Creek on May 1, 1923.

Philip H. Waldorf, whose promotion to terminal superintendent on the Illinois Central, with headquarters at East St. Louis, Mo., was announced in the *Railway Age* of December 31, was born at Peru, Ill., on November 27, 1878, and entered railway service on January 23, 1896, as a messenger for the Illinois Central at LaSalle, Ill. In July, 1896, he was transferred to Centralia, Ill., and later was advanced successively to switchman and yardmaster at that point. In April, 1902, he became a brakeman at Champaign, Ill., and later was promoted to conductor. He was transferred to the Chicago terminal on August 28, 1905, as yardmaster and general yardmaster and on August 7, 1910, was transferred to Council Bluffs, Iowa, in the same capacity. Mr. Waldorf was promoted to trainmaster of the Council Bluffs-Omaha



Philip H. Waldorf

terminal on September 16, 1922, and in November, 1930, his jurisdiction was extended over the Omaha district. Mr. Waldorf's promotion to terminal superintendent at East St. Louis was effective on January 1.

C. S. Pushie, whose appointment as superintendent of the Halifax division of the Canadian National was noted in the *Railway Age* of January 7, was born at New Glasgow, N. S. He commenced his railway career as clerk in the operating department of the Canadian National in New Glasgow on July 1, 1903, and the following year became secretary and clerk, being appointed chief clerk on December 16, 1915. Two years later he was transferred to Moncton as assistant chief clerk to the general superintendent and on October 1, 1918, was appointed supervisor of work service equipment. On February 15, 1920, Mr. Pushie was appointed operating inspector and on January 1, 1921, chief clerk to the general superintendent. Two years later he was appointed relieving superintendent of the Atlantic region, and on July

1, 1924, acting terminal agent, St. John, later being appointed terminal superintendent. On February 1, 1927, Mr. Pushie went to Bridgewater, as assistant superintendent. He was appointed acting superintendent of the Halifax division at Halifax, N. S., on September 20, 1938, becoming superintendent of that division on January 1.

Frank A. Coulter, assistant superintendent of telegraph on the Union Pacific, with headquarters at Omaha, Neb., has



Frank A. Coulter

been promoted to superintendent of telegraph, with the same headquarters, succeeding **P. F. Frenzer**, who retired on December 31.

Mr. Coulter was born in Omaha, on September 30, 1886, and entered the service of the Western Union in July, 1900, as a check boy and operator at Omaha. In July, 1903, he went with the Chicago & North Western, serving as a telegrapher at various points. Mr. Coulter entered the service of the Union Pacific as a telegrapher in September, 1904, and on August 6, 1907, he was transferred to the Chicago telegraph office, later being promoted successively to chief operator and manager of that office. On January 1, 1938, he was advanced to assistant superintendent, with headquarters at Omaha.

Mr. Frenzer was born in Omaha, and



P. F. Frenzer

entered the service of the Western Union at Omaha on July 29, 1881, as a messenger and check boy. On November 1, 1883, he

went with the Sioux City & Pacific (now part of the Chicago & North Western) as a telegraph operator, and on January 1, 1884, he went with the Chicago, Burlington & Quincy as an operator on the Western Division. In May, 1886, he re-entered the service of the Western Union at Omaha. Mr. Frenzer entered the service of the Union Pacific on October 26, 1890, and on May 6, 1908, he was advanced to manager of the telegraph department. On August 10, 1914, he was promoted to superintendent of telegraph, and on April 16, 1931, he was appointed superintendent of telegraph with headquarters at Omaha, and with jurisdiction over the entire system.

James F. Shaffer, assistant engineer on the staff of the operating vice-president of the Chesapeake & Ohio, at Cleveland, Ohio,



James F. Shaffer

has been promoted to superintendent of terminals, with headquarters at Chicago, succeeding to a position which has been vacant since the death of **J. A. Barker** on November 27, 1937.

Mr. Shaffer was born at New Market, Va., on March 5, 1889, and entered the service of the C. & O. in the superintendent's office at Hinton, W. Va., on July 9, 1910. After serving in various positions, including secretary, statistician and chief clerk in the maintenance of way and transportation departments, he was appointed assistant commissioner of the Newport News Coal Exchange, Newport News, Va., in November, 1920. Upon liquidation of that organization in 1924, Mr. Shaffer was appointed tidewater coal agent at Newport News, and in 1929 was transferred to Richmond, Va., as assistant engineer on the staff of the operating vice-president. He was transferred to Cleveland in 1933, when the jurisdiction of the operating vice-president was extended over the New York, Chicago & St. Louis (Nickel Plate).

W. E. Robinson, whose appointment as general superintendent of transportation of the Atlantic region of the Canadian National at Moncton, N. B., was noted in the *Railway Age* of January 7, was born at North Sydney, N. S. He first entered railway service as station agent, Canadian National, at Ingrafton, N. S., on January 10, 1905. The following year he became freight clerk at Bridgewater, N. S.,

subsequently holding the positions of ticket agent, train dispatcher, freight agent, train dispatcher at Bridgewater, and station agent at Port Wade, N. S. In 1911 he left railway service, returning on August 1, 1913, as train dispatcher at Bridgewater, and was appointed successively chief dispatcher and assistant superintendent. On February 1, 1927, he was transferred to Moncton as assistant superintendent and two years later to Campbellton, N. B., in the same capacity, being advanced to superintendent on October 1, 1929. On September 1, 1932, Mr. Robinson was transferred to the Moncton division as superintendent and on January 1, 1937, was appointed superintendent of the Halifax division. On September 20, 1938, Mr. Robinson was appointed acting general superintendent of transportation of the Atlantic region, becoming general superintendent of transportation of that region on January 1.

TRAFFIC

W. W. Stumph, has been appointed general agent for the Chicago, Springfield & St. Louis, at Tulsa, Okla.

E. G. Plowman, traffic manager of the Colorado Fuel & Iron Corporation, has been appointed also traffic manager of the Colorado & Wyoming.

E. K. West, city freight agent on the Denver & Rio Grande Western, at Salt Lake City, Utah, has been promoted to general agent, passenger department, at Denver, Colo., a newly created position.

V. J. Christensen, traveling freight and passenger agent on the Union Pacific, with headquarters at Sacramento, Cal., has been appointed acting general agent at that point succeeding **F. A. Fox**.

Arnold H. Farrar, who was promoted to general freight agent of the Baltimore & Ohio at Philadelphia on January 1, as noted in the *Railway Age* of January 14, was born on December 31, 1891. Mr. Farrar entered the service of the Baltimore & Ohio at St. Louis, Mo., as freight



Arnold H. Farrar

representative on April 1, 1920. He was advanced to district freight representative at Tulsa, Okla., on June 1, 1926, and to division freight representative at St. Louis

on September 1, 1930. On August 16, 1933, Mr. Farrar was transferred as division freight agent to Akron, Ohio, and became assistant general freight agent at Cleveland, Ohio, on January 1, 1937, in which position he remained until his recent appointment as general freight agent at Philadelphia.

Horace E. Watts, assistant to the chief traffic officer of the Wabash, with headquarters at St. Louis, Mo., whose retirement on December 31, was announced in the *Railway Age* of January 7, was born at Mt. Airy, Mo., on July 23, 1870, and attended Central College at Fayette, Mo. He entered railway service in 1888 as a telegraph operator for the Chicago & Alton, and in December of that year he went with the Wabash as an operator and ticket seller at Mexico, Mo. In 1891, he was appointed suburban ticket agent at St.



Horace E. Watts

Louis and in May, 1896, he was appointed passenger and ticket agent at Moberly, Mo. In November, 1905, he was promoted to division freight and passenger agent at Moberly, and in August, 1908, he was advanced to assistant general freight agent and industrial agent, with headquarters at St. Louis. Mr. Watts was promoted to general freight agent in December, 1915, and in March, 1920, he was further advanced to passenger traffic manager, the position he held until his appointment as assistant to the chief traffic officer in September, 1938.

T. J. Jordan, commercial freight agent of the Western Maryland, has been appointed general passenger agent, with headquarters at Baltimore, Md., succeeding **J. G. Krener**, deceased.

Z. P. Hawkins, acting traffic manager of the Columbus & Greenville, with headquarters at Columbus, Miss., has been appointed traffic manager, with the same headquarters.

Harry E. Benson, Pacific Coast agent of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Seattle, Wash., has been appointed general agent, with headquarters at St. Paul, Minn., succeeding to the duties of **C. K. Landes**, assistant general freight agent, who has retired. **E. M. Phelps**, district freight

Modern Equipment Needed To Reduce Expenses

The experience of recent years has indicated that, with increasing competition of other forms of transportation, the prospects of adding greatly to the gross revenues of the railroads are not particularly bright, surrounded with some uncertainty even with an improvement in general business conditions. For this reason, it is of great importance that every opportunity be grasped to effect permanent and substantial reductions in the cost of operation.

As far as the mechanical departments are concerned, they are directly responsible for the largest single item of operating expense—steam locomotive repairs—and, indirectly have considerable control over the fuel expense. These two items of operating expense, plus the expenditures for freight and passenger car repairs, amounted in 1937 to over 550 million dollars.

There are, therefore, two avenues open over which the mechanical officers have considerable control, the cost of locomotive operation and the cost of car and locomotive maintenance. With 67 per cent of the steam locomotives in this country over 20 years of age, it is well recognized that, as rapidly as funds can be found to finance their purchase, the introduction of modern motive power will contribute immeasurably to substantial reductions in the expense for fuel and maintenance.

In these days of small equipment replacement programs, the shop and engine terminal supervisor is working against odds in his battle to reduce maintenance costs for, if for no other reason, the increasing age of motive power brings about increases in the unit costs of repairs while, at the same time, a similar condition with respect to machine tools and shop equipment is making it more and more difficult to turn out repair work as economically and efficiently as it could and should be done with modern equipment. It is a case where the cost of repairs is automatically increasing because of a condition that can only be remedied by the modernization of equipment and repair facilities.

Whatever may be the ultimate outcome of the wage controversy, it does not alter the fact that the railways must save money.

It would seem, therefore, the railroad managements have arrived at a point where they must make a decision as to the future course to be followed in order to assure that their properties may remain solvent. Fortunately, with respect to both locomotive equipment and the facilities with which they are maintained, the records of performance of such equipment as has been installed in the last five or six years, proves conclusively that substantial reductions in operating and maintenance costs can be made.

Railway Mechanical Engineer
NOVEMBER, 1938

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agent, with headquarters at Seattle, has been promoted to general agent at Portland, Ore., and **Ben G. Spears**, general agent at Spokane, Wash., has been transferred to Seattle. **H. T. Duffy**, general agent at Duluth, Minn., has been transferred to Spokane to replace Mr. Spears, and **John G. Quick**, has been appointed general agent at Winston-Salem, N. C., a newly-created position.

George F. Berkemer, traveling freight agent for the Pennsylvania, with headquarters at Birmingham, Ala., has been promoted to district freight and passenger agent, with headquarters at New Orleans, La., succeeding **George H. Fyler**, who has retired.

ENGINEERING AND SIGNALING

O. K. Peck, bridge engineer of the Denver & Rio Grande Western, has been appointed engineer of structures, a change of title, with headquarters as before at Denver, Colo.

G. M. Hain, supervisor of track on the Philadelphia Terminal division of the Pennsylvania, has been promoted to division engineer of the Toledo division, with headquarters at Toledo, Ohio, relieving **G. H. Schlotterer**, who has been assigned to other duties.

J. B. Jones, supervisor of track on the New York division of the Pennsylvania, has been promoted to division engineer of the St. Louis division, with headquarters at Terre Haute, Ind., succeeding **James L. Cranwell**, who has been transferred to the Columbus division, with headquarters at Columbus, Ohio. Mr. Cranwell replaces **Thomas L. Doyle**, whose promotion to assistant to the general manager of the Western region at Chicago is announced elsewhere in these columns.

MECHANICAL

O. K. Woods, locomotive engineer on the Colorado division of the Union Pacific, has been appointed fuel engineer for the Eastern district, with headquarters at Omaha, Neb., and **H. G. Baker**, road foreman of engines on the Idaho division, has been promoted to fuel engineer for the South-Central and Northwestern districts, with headquarters at Pocatello, Idaho.

PURCHASES AND STORES

Thomas J. Frier, whose retirement on December 1, as purchasing agent of the Wabash, with headquarters at St. Louis, Mo., was announced in the *Railway Age* of December 17, was born at Keokuk, Iowa, on February 12, 1866, and entered railway service in 1883 as a junior clerk in the office of the master mechanic of the St. Louis, Keokuk & Northwestern (now a part of the Chicago, Burlington & Quincy). After advancing through various positions he was appointed general storekeeper for the Burlington system in 1907. In 1909, he resigned to go with the Wabash as purchasing agent, with head-

quarters at St. Louis, Mo., and continued in that position until his retirement. Mr. Frier was one of the pioneers in the development of the present storekeeping



Thomas J. Frier

system now employed by the major railroads throughout the country.

OBITUARY

Charles C. Elrick, assistant general passenger agent on the Alton, with headquarters at Chicago, died in the Mercy Hospital, Chicago, on January 16.

Clarence M. Booth, traffic manager of the Pere Marquette, with headquarters at Detroit, Mich., died suddenly on January 19 in a hospital at Ann Arbor, Mich.

Joseph C. Peters, who retired in 1933 as division superintendent of the Reading, with headquarters at Philadelphia, Pa., died on January 16 in St. Petersburg, Fla., at the age of 73.

Richard Vernon Nicholson, retired bridge and building master of the Canadian Pacific, with headquarters at Ottawa, Ont., died on January 2 at his home in Toronto, Ont., at the age of 72. Mr. Nicholson retired in 1931.

Manley B. Cutter, retired president of the Tonopah & Goldfield, with headquarters at Philadelphia, Pa., and at one time general manager of the Lehigh Valley and later of the Minneapolis & St. Louis, died at the Northwestern hospital in Minneapolis, Minn., on January 15. Mr. Cutter was born on October 10, 1860, and entered railway service in 1876 as a messenger for the Chicago & North Western. In 1878, he became a conductor and in 1881, he went with the Northern Pacific. In 1884, he was appointed a clerk and in 1887, he went with the Chesapeake & Ohio as a chief clerk. One year later he was promoted to division superintendent and in 1889, he went with the Wisconsin Central in the same capacity. Mr. Cutter was appointed general superintendent of the Chesapeake, Ohio & Southwestern (now part of the Illinois Central) and Louisville, New Orleans & Texas (now Yazoo & Mississippi Valley part of the Illinois Central system) in 1891, and two years later he went with the Baltimore

& Ohio as a division superintendent. In 1897, he was appointed superintendent of transportation of the Lehigh Valley, and on February 11, 1903, he was advanced to general superintendent. On December 4, 1904, he was promoted to general manager but resigned on November 1, 1908, to become general manager of the Minneapolis & St. Louis and Iowa Central. A year later he became president of the Tonopah & Goldfield, and held that position until his retirement in the latter part of 1930.

Col. Frederick Mears, assistant chief engineer on the Great Northern, with headquarters at Seattle, Wash., whose death on January 11 following an operation was announced in the *Railway Age* of January 14, was born at Fort Omaha, Neb., on May 25, 1878, and graduated from Shattuck School, Fairbault, Minn., in 1897. He entered railway service in June of that year on survey and construction work on the Great Northern. He was later promoted to assistant engineer and in July, 1905, was appointed assistant engineer on the Chicago, Rock Island & Pacific. In October, 1905, he entered the service of the United States Army and in May, 1906, was appointed assistant engineer for the Isthmian Canal Commission at Panama. Colonel Mears was promoted to resident engineer of the Panama Railroad in May, 1907, and in December, 1909, was advanced to chief engineer. In 1913, he was appointed also general superintendent. In May, 1914, he was appointed a member of the Alaskan Engineering Commission, on which he served until February, 1918, when he was appointed assistant general manager of the railroad department of the United States Army in the United States and France. He was later promoted to general manager, which position he held until August, 1919, when he was appointed



Col. Frederick Mears

chairman and chief engineer of the Alaskan Engineering Commission, in charge of Alaska railroad operation and construction. Mr. Mears was appointed chief engineer of the St. Paul Union Depot Company in charge of construction of the St. Paul Union Depot in August, 1923, and remained in that position until April, 1925, when he was appointed assistant chief engineer in charge of Western lines of the Great Northern.

Table of Operating Revenues and Expenses appears on next left-hand page



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Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 137 Monthly Reports of Revenues and Expenses Representing 141 Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF NOVEMBER, 1938 AND 1937

Item	United States		Eastern District		Southern District		Western District	
	1938	1937	1938	1937	1938	1937	1938	1937
Miles of road operated at close of month	234,167	235,103	57,801	58,089	44,605	44,766	131,761	132,248
Revenues:								
Freight	\$264,134,842	\$258,684,243	\$104,757,142	\$102,656,960	\$53,778,257	\$51,988,207	\$105,599,443	\$104,039,076
Passenger	30,211,146	33,317,859	17,768,148	18,895,767	3,544,021	4,296,978	8,898,977	10,125,114
Mail	8,073,400	8,132,367	3,047,900	3,116,599	1,434,658	1,451,117	3,590,842	3,564,651
Express	4,037,052	4,030,480	1,662,221	1,537,513	784,081	778,547	1,590,750	1,714,420
All other operating revenues	13,225,398	14,015,428	6,744,482	7,224,114	1,708,174	1,756,129	4,772,742	5,035,185
Railway operating revenues	319,681,838	318,180,377	133,979,893	133,430,953	61,249,191	60,270,978	124,452,754	124,478,446
Expenses:								
Maintenance of way and structures	34,601,189	36,519,126	13,111,537	14,431,208	6,547,710	6,864,042	14,941,942	15,223,876
Maintenance of equipment	59,468,188	65,312,767	25,775,566	29,047,196	11,428,525	12,432,085	22,264,097	23,833,486
Traffic	8,446,522	8,761,658	3,065,968	3,116,062	1,619,579	1,679,422	3,760,975	3,966,174
Transportation—Rail line	115,223,593	124,093,512	51,129,764	55,204,407	19,272,309	20,624,704	44,821,520	48,264,401
Transportation—Water line	420,172	494,225	.....	.....	.....	.....	420,172	494,225
Miscellaneous operations	2,881,936	3,282,064	1,346,767	1,538,123	306,599	347,178	1,228,570	1,396,763
General	10,510,402	11,259,797	4,233,403	4,365,414	1,939,686	2,125,976	4,337,313	4,768,407
Transportation for investment—Cr.	294,914	427,802	61,797	70,312	32,173	70,389	200,944	287,101
Railway operating expenses	231,257,088	249,295,347	98,601,208	107,632,098	41,082,235	44,003,018	91,573,645	97,660,231
Net revenue from railway operations	88,424,750	68,885,030	35,378,685	25,798,855	20,166,956	16,267,960	32,879,109	26,818,215
Railway tax accruals	27,761,636	26,025,104	10,788,687	10,961,392	6,277,514	4,990,909	10,695,435	10,072,803
Railway operating income	60,663,114	42,859,926	24,589,998	14,837,463	13,889,442	11,277,051	22,183,674	16,745,412
Equipment rents—Dr. balance	8,147,960	7,278,547	3,944,925	2,737,167	244,998	135,185	3,958,037	4,406,195
Joint facility rent—Dr. balance	2,850,473	3,062,282	1,530,814	1,662,141	313,431	339,191	1,006,228	1,060,950
Net railway operating income	49,664,681	32,519,097	19,114,259	10,438,155	13,331,013	10,802,675	17,219,409	11,278,267
Ratio of expenses to revenues (per cent)	72.3	78.4	73.6	80.7	67.1	73.0	73.6	78.5
Depreciation included in operating expenses	16,666,345	16,570,102	7,196,398	7,257,998	3,317,836	3,188,989	6,152,111	6,123,115
Pay roll taxes	8,322,491	6,582,177	3,492,415	2,766,774	1,491,186	1,129,883	3,338,890	2,685,520
All other taxes	19,439,145	19,442,927	7,296,272	8,194,618	4,786,328	3,861,026	7,356,545	7,387,283

FOR ELEVEN MONTHS ENDED WITH NOVEMBER, 1938 AND 1937

Miles of road operated at close of month*	234,545	235,535	57,931	58,267	44,671	44,783	131,943	132,485
Revenues:								
Freight	\$2,606,757,222	\$3,146,765,716	\$1,015,692,589	\$1,319,895,595	\$529,338,890	\$606,348,553	\$1,061,725,743	\$1,220,521,568
Passenger	367,969,944	402,876,236	202,757,407	221,807,352	48,136,713	55,219,652	117,075,824	125,849,232
Mail	85,362,018	87,579,984	32,587,059	33,506,783	14,879,893	15,332,156	37,895,066	38,741,045
Express	43,309,329	52,950,730	15,921,385	21,824,907	8,850,859	10,783,398	18,537,085	20,342,425
All other operating revenues	143,756,116	175,575,114	70,075,995	88,099,660	18,557,596	21,665,929	55,122,525	65,809,525
Railway operating revenues	3,247,154,629	3,865,747,780	1,337,034,435	1,685,134,297	619,763,951	709,349,688	1,290,356,243	1,471,263,795
Expenses:								
Maintenance of way and structures	388,791,661	462,173,631	141,017,971	181,721,056	70,696,377	79,649,574	177,077,313	200,803,001
Maintenance of equipment	616,178,596	765,921,491	255,544,472	346,220,468	119,757,406	138,686,918	240,876,718	281,014,105
Traffic	93,786,874	96,348,834	34,122,080	35,497,929	17,776,256	18,072,952	41,888,538	42,777,953
Transportation—Rail line	1,238,195,289	1,379,352,439	542,804,425	621,003,348	208,604,412	224,841,189	486,786,452	533,507,902
Transportation—Water line	4,314,726	5,203,622	.....	.....	.....	.....	4,314,726	5,203,622
Miscellaneous operations	34,321,411	37,755,584	15,122,503	16,795,713	4,028,276	4,506,083	15,170,632	16,453,788
General	116,910,522	133,999,957	46,399,650	55,679,756	22,219,144	24,440,171	48,291,728	53,880,030
Transportation for investment—Cr.	2,974,171	5,045,327	555,950	882,922	478,872	698,111	1,939,349	3,464,294
Railway operating expenses	2,489,524,908	2,875,710,231	1,034,455,151	1,256,035,348	442,602,999	489,498,776	1,012,466,758	1,130,176,107
Net revenue from railway operations	757,629,721	990,037,549	302,579,284	429,098,949	177,160,952	219,850,912	277,889,485	341,087,688
Railway tax accruals	314,284,740	304,604,154	132,475,609	134,516,910	63,165,152	65,008,287	118,643,979	105,078,957
Railway operating income	443,344,981	685,433,395	170,103,675	294,582,039	113,995,800	154,842,625	159,245,506	236,008,731
Equipment rents—Dr. balance	87,642,727	87,615,890	37,132,121	36,153,513	4,963,252	3,363,268	45,547,354	48,099,109
Joint facility rent—Dr. balance	32,350,116	33,608,464	17,398,741	18,655,990	3,585,814	3,579,527	11,365,561	11,372,947
Net railway operating income	323,352,138	564,209,041	115,572,813	239,772,536	105,446,734	147,899,830	102,332,591	176,536,675
Ratio of expenses to revenues (per cent)	76.7	74.4	77.4	74.5	71.4	69.0	78.5	76.8
Depreciation included in operating expenses	185,259,677	180,192,065	80,895,823	79,841,681	36,197,589	34,490,071	68,166,265	65,860,313
Pay roll taxes	90,763,420	60,213,050	38,013,899	32,858,779	16,122,141	10,080,263	36,627,380	17,274,008
All other taxes	223,521,320	244,391,104	94,461,710	101,658,131	47,043,011	54,928,024	82,016,599	87,804,949

* Represents an average of the mileage reported at the close of each month within the period.
Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.